EPA REGISTRATION NUMBER 66330-59 – VOL. 1

DP #: (314201) Decision #: 354030

DATA PACKAGE BEAN SHEET

Date: 10-Mar-2005

* * * Registration Information * * *

Registration: 66330-LO - MIDAS 33:67

Company: 66330 - ARVESTA CORPORATION

Risk Manager: RM 21 - Mary Waller - (703) 308-9354 Room# CM-2 249

Risk Manager Reviewer: Dennis McNeilly DMCNEILL

Sent Date: Calculated Due Date: Edited Due Date:

Type of Registration: Product Registration - Section 3

Action Desc: (R01) NEW AI;FOOD USE;

Ingredients: 081501, Chloropicrin(67%)

000011, Methane, iodo-(33%)

* * * Data Package Information * * *

Expedite: ○ Yes ● No Date Sent: 10-Mar-2005 Due Back:

DP Ingredient: 000011, Methane, iodo-

081501, Chloropicrin

DP Title: Group A & B prod chem /EUP

CSF Included: ● Yes ○ No Label Included: ● Yes ○ No Parent DP #:

	Assigned To	Date In	Date Out	
Organization:	RD / TRB			Administrative Due Date: 25-Dec-2007
Team Name:				Negotiated Due Date:
Reviewer Name:				Projected Completion Date:
Contractor Name:				

* * * Studies Sent for Review * * *

Printed on Page 2

* * * Additional Data Package for this Decision * * *

No Additional Data Packages

* * * Data Package Instructions * * *

Please review the product chemistry for this end use product. There were several very similar submissions.

DP#: (314201) [redacted]tudies Sent for Review * * * [redacted] Decision#: (354030)

MRID	Citation Reference	Guideline
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1550/Product Identity and cor
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1600/Description of materials
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1620/Description of productio
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1650/Description of formulatic
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1670/Discussion of formation
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1700/Preliminary analysis
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1750/Certified limits
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1800/Enforcement analytical r

5781700

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

JUL 22 2005

Laurent C. Mézin
Project Manager
Arysta LifeScience North America
100 First Street, Suite 1700
San Francisco, CA 94105

Subject: Midas 33:67
EPA File Symbol No. 66330-LO
Revised CSF submitted 6/18/05

Dear Dr. Mézin:

The revised basic Confidential Statement of Formula (CSF) dated 6/18/05 referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable. Please note that this CSF supercedes all previous CSFs for this product and will be added to the regulatory file.

If you have any questions, please contact Robert Westin by phone at (703) 305-5721 or via email at westin.robert@epa.gov.

Sincerely,

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Arvesta

June 27, 2005

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

Bob: According to Dennis, the last TRB review requested changes to the CSF for cert. limits. Please verify cert. limits or send to TRB. Thanks, Mary

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

RE: IODOMETHANE (EPA Reg. No. 66330-UU) formulated products
Submission of Updated CSFs for the MIDAS formulations

Dear Ms Waller:

Included with this cover letter are updated CSFs for Iodomethane formulated products. This follows conversations I have had with Dennis McNeilly regarding this issue. CSFs are enclosed for the following products:

1. MIDAS 98:2 (EPA File No. 66330-UG) S781697
2. MIDAS 25:75 (EPA File No. 66330-UE) S781698
3. MIDAS 33:67 (EPA File No. 66330-LO) S781700
4. MIDAS 50:50 (EPA File No. 66330-LT) S781701
5. MIDAS EC BRONZE (EPA File No. 66330-LI) S781704
6. MIDAS EC GOLD (EPA File No. 66330-AN) S781706

Should you have any questions, please contact me at (415) 778 4844.

Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 20 2005

Mr. Laurent C. Mezin
Avesta Corp.
100 First Street, Suite 1700
San Francisco, CA 94105

Subject: Midas 33:67
EPA File Symbol: 66330-LD
Product Chemistry

Dear Mr. Mezin:

The Agency is forwarding a review of the product chemistry data supporting this registration (MRID 46476401). This letter does not constitute approval of the product. The Agency simply wants to advise you of the status of the product chemistry review. For detailed information see the enclosed review by Linda L. Kutney dated 5/11/2005. Please note Conclusion 2 in the enclosed review.

Sincerely,

for

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Enclosure: product chemistry review

FEE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OPPTS/OPP/RD/TRB/PRODUCT CHEMISTRY TEAM

WASHINGTON, D.C. 20460

DATE OUT: May 11, 2005

SUBJECT: Product Chemistry Review of Midas 33:67
Barcode #:314201 Decision #:354030 Reg No:66330-LO
PC Code(s):081501,000011 Food Use:Yes

FROM: Linda L. Kutney, Chemist
Product Chemistry Team
Technical Review Branch/RD (7505C)

Linda L Kutney 5/11/05

S Barr 5/11/05

TO: Mary Waller, Dennis McNeilly RM-21
Fungicide Branch/ RD (7505C)

INTRODUCTION:

The Arvesta Corporation has submitted product chemistry data, a proposed label and a basic CSF (dated 2/16/05) for the new product, Midas 33:67, having a label claim of 67.00% Chloropicrin, 33.00% Iodomethane. Midas 33:67 is to be used on food crops. Data were submitted under MRID 46476401, 45594202 and 46448901.

SUMMARY OF FINDINGS:

1. The physical or chemical hazards and storage and disposal statements on the label are acceptable.

TRB CONCLUSIONS:

1. Registration of this new product is dependent on registration of the unregistered source of iodomethane.

2. If the purity of the unregistered iodomethane source ai is not 100%, then the appropriate adjustment of the proposed CSF must be made.

3. Storage Stability testing, Guideline 830.6317, is in progress and must be submitted to EPA upon its completion.

4. Corrosion Characteristics testing, Guideline 830.6320, is in progress and must be submitted to EPA upon its completion.

PRODUCT CHEMISTRY DATA (SERIES 830 Subgroup A & Subgroup B)

Subgroup A, Guideline Requirement 830.--	Data Satisfied?	MRID No.
1550.Chemical Identity(CSF)	Yes	CSF
1600. Beginning Materials 1650. Formulation Process	Yes, CSF Yes, Non-integrated Process	46476401 46476401
1670. Discussion of Impurities	Yes, none expected	46476401
1750. Certified Limits(CSF)	Yes	CSF 46476401
1800 Enforcement Analytical Method	Yes, submitted previously, `Analysis of Iodomethane and Chloropicrin in Two Formulations' which uses an Agilent 6890 GC with FID at 260C, DB-624 GC Column using a 30 m x 0.53 mm ID, 3.0 micron film thickness or equivalent and a Chlorobenzene Internal Standard. The carrier gas is Helium at about 4 ml/min, temp 35C (10 min) to 5C/min to 135C (1 min hold), then 10C/min to 260C (1.5 min hold). Injection Vol is 1 microliter, runtime is 45 min, retention times about: Iodomethane 5.2 min Chloropicrin 19.9 min Chlorobenzene 23 min	46476401 46448901 45594202

Subgroup B, Guideline 830.- Data Requirement:	Data OK ?	Description	MRID No.
6302 Color	Yes	Light Yellow	46476401
6303 Physical State	Yes	Volatile Liquid	46476401
6304 Odor	Yes	NA Product an inhalation hazard & contains a warning agent.	46476401
6314 Oxidation/Reduction	Yes	Does not appear to react with water, granular zinc, monoammonium phosphate or household bleach.	46476401
6315 Flammability/Flame Extension	Yes	NA Not combustible.	46476401
6316 Explodability	Yes	Not reported to contain explosive components.	46476401
6317 Storage Stability	NO	Study in progress.	46476401
6319 Miscibility	Yes	NA. Not mixed with petroleum solvents.	46476401
6320 Corrosion Characteristics	NO	Study in progress.	46476401
6321 Dielectric Breakdown Voltage	Yes	NA Not used around electrical equipment.	46476401
7000 pH	Yes	6.8 @ 24.6 C in 1% w/v water emulsion	46476401
7100 Viscosity	Yes	0.919 cP @ 24.6C	46476401
7300. Density/Bulk Density	Yes	15.0 lb/ft3 (1.80 g/ml) @ 24.6C	46476401

Explanations: NA = Not Applicable

DP#: (314201) *** Studies Sent for Review *** Decision#: (354030)

MRID	Citation Reference	Guideline
46476401	Cornes, S. (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Project Number: ARV/04/425/001/002, 04/0237/G1/2345678, 04/0236/G1/G2. Unpublished study prepared by Toxikon Environmental Sciences. 41 p.	830.1550/Product Identity and cor
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DP#: (314201) *** Additional Data Package for this Decision *** Decision#: (354030)

DP #	Division/Branch	Date Sent	Date Due	Instructions?	CSF	label
314202	RD / FB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314202	HED / IO	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314203	EFED / IO	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314203	RD / FB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No

Fee for Service

This package includes the following	for Division
[X] New Registration	[X] RD
[ ] Amendment	[ ] AD
[ ] Waiver Request	[ ] BPPD
[ ] Voluntary Payment Request	Risk Mgr. 21

Receipt Nos. S- 774810

EPA File Symbol/Reg. No. 66330-40

Pin-Punch Date: 2/18/05

[ ] Includes changes to uses – requires routing to contractor coding

Action Code:

Requested: R31 ADMIN. DIS. $ 471,000

Granted: R1. Amount due: $ ~~[illegible]~~ 4000

VolPay Reduction:

____% Original Decision #: D-

Parent/Child Decisions:

66330-44-D219256 (Do not Link)

Reviewer: [signature] Date: 2/24/05

Remarks: (use back if needed)

crossing new AI.

reduce fee associated w previous application

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

February 25, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

PLEASE RETURN A COPY OF THIS LETTER WITH PAYMENT

OPP Decision Number: D-354030
EPA File Symbol or Registration Number: 66330-LO
Product Name: MIDAS 33:67
EPA Receipt Date: 18-Feb-2005
EPA Company Number: 66330
Company Name: ARVESTA CORPORATION

LAURENT C. MEZIN
ARVESTA CORPORATION
100 FIRST STREET, SUITE 1700
SAN FRANCISCO, CA 94105

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application for registration. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R01

NEW AI; FOOD USE;

Please remit payment in the amount of: $ 4,000 to:

By USPS:
USEPA Washington Finance Center
Pesticide Registration Service Fee
PO Box 360277
Pittsburgh, PA 15251

By Courier:
U.S. EPA Washington Finance Center
Pesticide Registration Service Fee
C/O Mellon Client Service Center
500 Ross Street, Room 670
Box 360277
Pittsburgh, PA 15251-6277
Attn: EPA Module Supervisor
Telephone: (412) 236-2294

All payments must be in United States currency by check, bank draft, or money order drawn to the order of the Environmental Protection Agency. To ensure proper credit, please write the OPP DECISION NUMBER on your check, and enclose a copy of this letter with your payment.

You may be eligible for a full or partial waiver of the registration service fee if, for example, you qualify as a small business or are applying for a minor use, or if your application is solely associated with an IR-4 tolerance petition. Please be advised that if you intend to request a waiver, you must do so in writing within 15 days of receipt of this invoice instead of remitting the amount indicated above. OPP will not consider waiver requests after the registration service fee has been paid. Information regarding eligibility and how th request and document a fee waiver is available on the OPP Fee for Service web site at www.epa.gov/pesticides/fees.

Please send Registration Service Fee Waiver requests to:

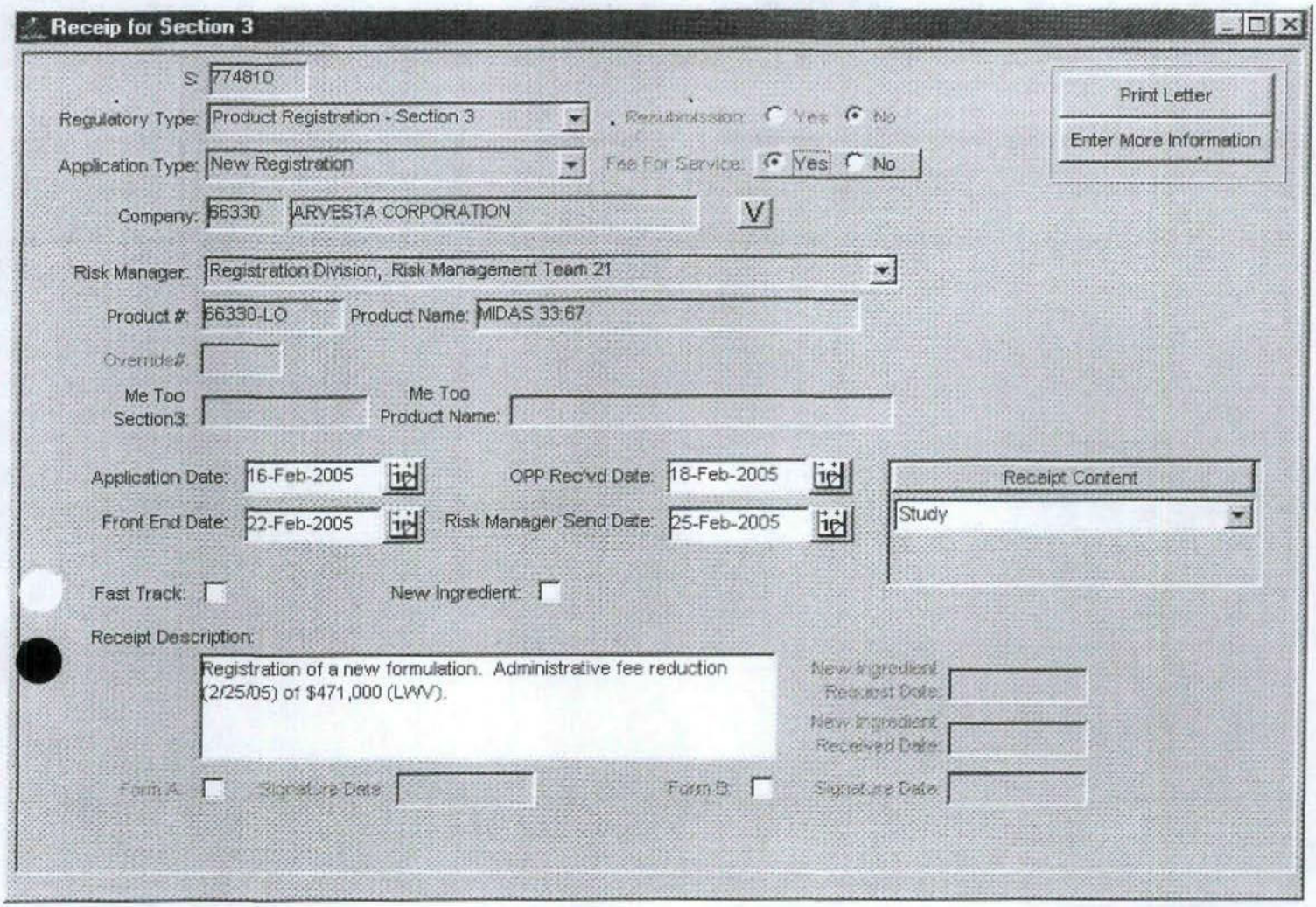
By USPS:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

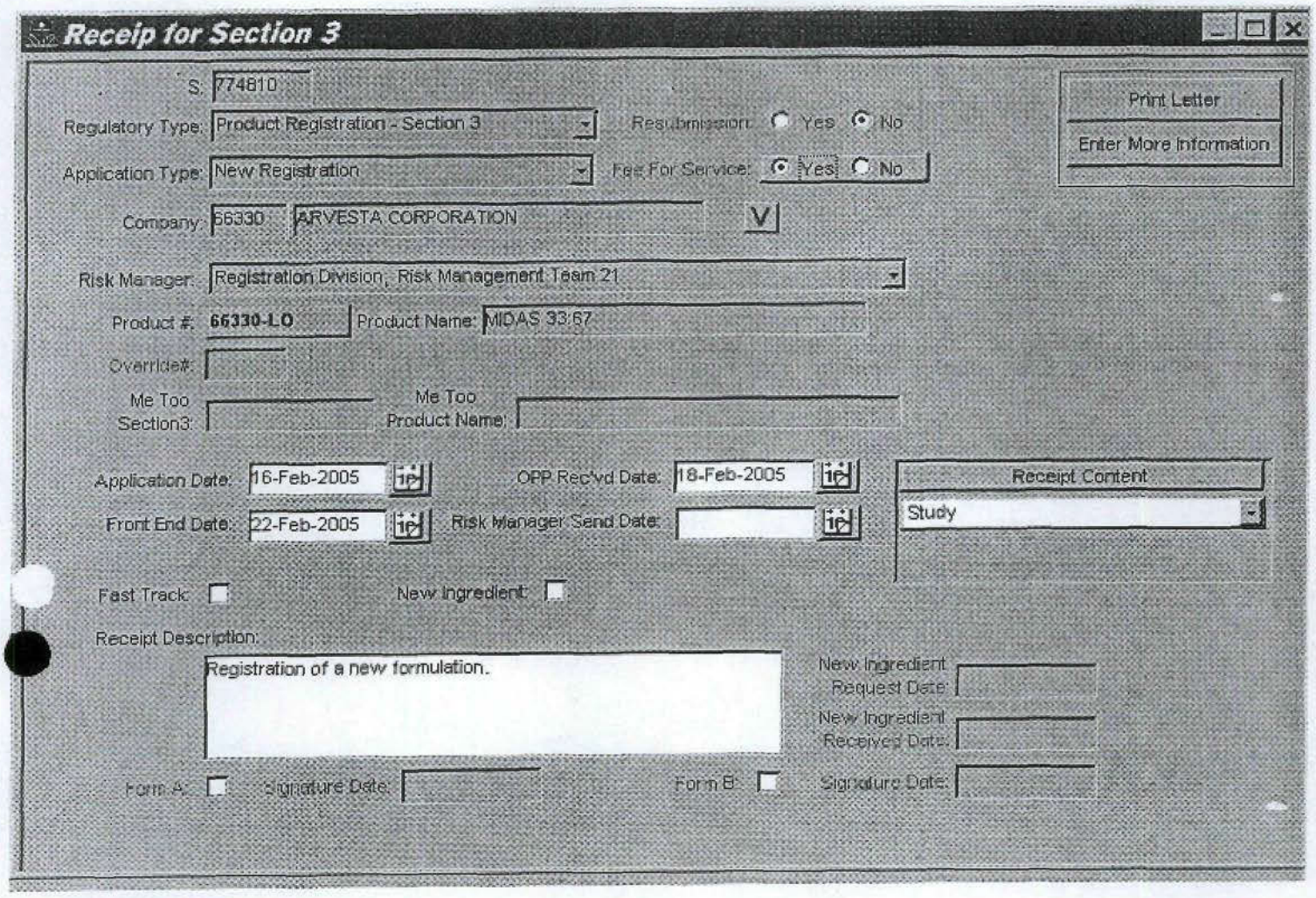
By Courier:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1801 South Bell St.
Arlington, VA 22202

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 305-6249.

Sincerely,

Front End Processing Staff
Information Resources and Services Division


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33:67
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
OPP Rec'vd Date: 18-Feb-2005
Front End Date: 22-Feb-2005
Risk Manager Send Date: 25-Feb-2005
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation. Administrative fee reduction (2/25/05) of $471,000 (LWV).
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33:67
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
OPP Rec'vd Date: 18-Feb-2005
Front End Date: 22-Feb-2005
Risk Manager Send Date:
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation.
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:

Arvesta

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

February 16, 2005

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

RE: MIDAS 33:67 (EPA Reg. No. 66330-??)
Submission for registration of a new formulation
Waiver and rationale for waiver of acute toxicology studies

Dear Ms Waller:

Included with this cover letter is a submission for the registration of the new end-use product, MIDAS 33:67.

MIDAS 33:67 contains the currently registered active ingredient **chloropicrin** (67.0 %) and an active ingredient, **iodomethane technical**, currently under review (33%).

All uses of this new formulation are already common to those of the previously submitted products. There are no food uses.

With respect to PRIA and the fee associated with this submission, we believe the appropriate review/fee category is as follows:

R31: New product; non fast track; Fee: $4,000.00

In support of this submission, the following data and documents are enclosed:

Volume 1. Administrative Volume.

1. The present cover letter;
2. EPA Form 8570-1: Application for Registration;
3. EPA Form 8570-4: Confidential Statement of Formula;
4. Proposed Label (5 copies);
5. EPA Form 8570-34: Certification with Respect to Citation of Data;
6. EPA Data Matrix; and
7. Transmittal document.

The following volume is submitted in triplicate:

Volume 01: U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504).

Waiver request overview:

EPA is currently reviewing the submissions for registration of two iodomethane end-use products, MIDAS 98:2 containing 98% iodomethane and 2% chloropicrin as a warning agent, and MIDAS 25:75, containing 25% iodomethane and 75% chloropicrin. Iodomethane is a new active ingredient while chloropicrin is currently registered by the agency. In previous discussions with EPA, Arvesta Corporation has discussed the viability of using the results of acute toxicity data from the two iodomethane end-use formulations currently under review, to "bridge" the acute toxicity data requirements for registration of additional iodomethane end-use formulations containing intermediate proportions of both active ingredients. In these discussions, the agency agreed, in principle, that the requirements for new acute toxicity data for the formulations could be waived if the precautionary statements for these new formulations were based on the most severe results from the acute toxicity studies that have been performed on the previously submitted product formulation.
Arvesta Corporation has previously a request to have these requirements waived and includes a full rationale to support the request, consistent with our understanding with the agency. This request included the two formulations presented herein, and is titled as follows:

Iodomethane: Data Waiver Request Health Effects: Acute Toxicity Data Use Existing Studies as Surrogate/Bridge (MRID # 46422702).

Should you have any questions, please contact me at (415) 778 4844.

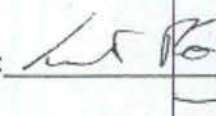
Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

TRANSMITTAL DOCUMENT FOR:
APPLICATION FOR REGISTRATION OF **MIDAS 33:67**
EPA File No. 66330-??
Submission of a new formulated product
December 03, 2004 -- Page 1 of 1

Data Submitter:
Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

Attn: Laurent C. Mézin, Ph.D.
Tel: (415) 778 4844

Signature: 

Document	Volume No.	Test Subs.	MRID No.
ADMINISTRATIVE VOLUME			
Cover letter		n/a	
Transmittal Document		n/a	
VOLUME 01			
Comes, S. R., (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Unpublished Report. Lab No. 04-0236-G1 & G2, 41 p.	1	EUP	

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060, Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [✓] Registration
- [ ] Amendment
- [ ] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number: 66330- LO
2. EPA Product Manager: Mary Waller
3. Proposed Classification: [ ] None [✓] Restricted
4. Company/Product (Name): MIDAS 33:67
   PM#: 21
5. Name and Address of Applicant *(Include ZIP Code)*:
   ARVESTA Corporation
   100 First Street, Suite 1700
   San Francisco, CA 94105
   [ ] *Check if this is a new address*
6. **Expedited Reveiw.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
   EPA Reg. No. _____
   Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [ ] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [✓] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of new formulated product containing 33% iodomethane and 67% chloropicrin.

PRIA category R31: *New product; non-fast track*

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [✓] No	[ ] Yes [✓] No	[ ] Yes [✓] No	[✓] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
Certification must be submitted	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information: [✓] Label [ ] Container
4. Size(s) Retail Container: 25, 110 and 400 gallons
5. Location of Label Directions: [✓]
6. Manner in Which Label is Affixed to Product: [ ] Lithograph [✓] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Laurent C. Mézin, Ph.D.	Project Manager	(415) 778 4844

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature: Laurent Mézin
3. Title: Project Manager
4. Typed Name: Laurent C. Mézin
5. Date: February 16, 2005

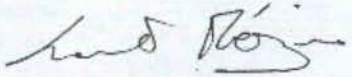
EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67
Ingredient: IODOMETHANE, CHLOROPICRIN	

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.0000	Product Chemistry		Arvesta Corporation	OWN	
830.1550	Product Identity and Composition		Arvesta Corporation	OWN	
830.1600	Description of Materials Used to Produce Product		Arvesta Corporation	OWN	
830.1650	Description of Formulation Process		Arvesta Corporation	OWN	
830.1670	Discussion of Formation of Impurities		Arvesta Corporation	OWN	
830.1700	Preliminary Analysis		Arvesta Corporation	OWN	
830.1750	Certified Limits		Arvesta Corporation	OWN	
830.1800	Enforcement of Analytical Method		Arvesta Corporation	OWN	
830.1900	Submittal of Standards		Arvesta Corporation	OWN	
830.6302	Color		Arvesta Corporation	OWN	
830.6303	Physical State		Arvesta Corporation	OWN	
830.6304	Odor		Arvesta Corporation	OWN	
830.6314	Oxidation/Reduction: Chemical Compatibility		Arvesta Corporation	OWN	
830.6315	Flammability		Arvesta Corporation	OWN	
830.6316	Explodability		Arvesta Corporation	OWN	
830.6317	Storage Stability		Arvesta Corporation	OWN	

Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb 16, 2005

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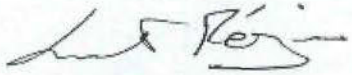
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67
Ingredient: IODOMETHANE, CHLOROPICRIN	

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6319	Miscibility		Arvesta Corporation	OWN	
830.6320	Corrosion Characteristics		Arvesta Corporation	OWN	
830.6321	Dielectric Breakdown Voltage		Arvesta Corporation	OWN	
830.7000	pH		Arvesta Corporation	OWN	
830.7100	Viscosity		Arvesta Corporation	OWN	
830.7300	Density/Relative Density/Bulk Density		Arvesta Corporation	OWN	
870.0000	Acute Health Effects		Arvesta Corporation	OWN	Waiver
870.1100	Acute Oral Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1200	Acute Dermal Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1300	Acute Inhalation Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.2400	Acute Eye Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2500	Acute Dermal Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2600	Skin Sensitization	46422702	Arvesta Corporation	OWN	Waiver

Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb. 16, 2005

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

May 3, 2005

Mr. Laurent C. Mezin
Avesta Corp.
100 First Street, Suite 1700
San Francisco, CA 94105

Subject: Midas 33:67
EPA File Symbol: 66330-LO
Acute toxicity waiver request

Dear Mr. Mezin:

The Agency is forwarding review of the acute toxicity waiver request supporting this registration. This letter does not constitute approval of the product. The Agency simply wants to advise you of the status of the acute toxicity waiver request. Review of the acute toxicity data and waiver request indicates acceptable six-pack studies and that the overall signal word for this product will be DANGER (See Breann Hanson's review dated 24 March 2005).

Sincerely,

for

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505C)

Enclosures: acute toxicity waiver request

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

March 24, 2005

MEMORANDUM

Subject:	Name of Pesticide Product:	MIDAS™ 33:67	
	EPA File Symbol:	66330-LO	
	DP Barcode:	D314204	
	Decision No:	354030	
	PC Codes:	000011	Iodomethane
		081501	Chloropicrin

From: Breann Hanson, Biologist
Technical Review Branch
Registration Division (7505C)

To: Dennis McNeilly, RM Team 21
Fungicide Branch
Registration Division (7505C)

Applicant: Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

FORMULATION FROM LABEL:

Active Ingredients:			% by wt.
000011	Iodomethane	CAS No. 74-88-4	33.00%
081501	Chloropicrin	CAS No. 76-06-2	67.00%
		Total:	100.00%

ACTION REQUESTED:

The Product Manager requests:

> "The registrant is requesting a waiver of the acute tox six-pack. They have included an overview of the arguments in this package and cite a particular MRID which they state has the complete argument." Note: The complete argument was previously sent to TRB under 66330-LT (B. Hanson, 2/15/05).

BACKGROUND

Arvesta Corporation has submitted a new end-use product registration request for MIDAS™ 33:67, EPA File Symbol: 66330-LO. The product contains Iodomethane and Chloropicrin at concentrations of 33 and 67%, respectively. The company is requesting a waiver of acute toxicity studies (MRID 46422702) based on the fact that two products have already been registered which contain both ingredients; MIDAS™ 98:2, EPA Reg. No. 66330-43, containing 98% Idomethane and 2% Chloropicrin, and MIDAS™ 25:75, EPA Reg. No. 66330-42, containing 25% Iodomethane and 75% Chloropicrin. Both products have toxicity categories of I and are dermal sensitizers. The acute oral and dermal toxicity, eye irritation, dermal irritation and dermal sensitization studies (MRIDs 455942-04 through -08) for MIDAS™ 98:2, EPA Reg. No. 66330-43, were previously reviewed in a TRB memo (Hashim, EPA File Symbol: 66330-UG, D282272, Case No. 071529, 17/JUNE/2002). The acute inhalation toxicity study (MRID 45641301) was reviewed in another TRB memo (Backus, EPA File Symbol: 66330-UG, D282078, Case No. 071529, 18/JUNE/2002). The acute oral, dermal and inhalation toxicity, dermal irritation and dermal sensitization studies (MRIDs 456412-01 through -05) for MIDAS™ 98:2, EPA Reg. No. 66330-42, were previously reviewed in a TRB memo (Hashim, EPA File Symbol: 66330-UE, D282076, Case No. 071525, 20/JUNE/2002). The eye irritation study (45594206) was cited from MIDAS™ 98:2, EPA Reg. No. 66330-43.

MIDAS™ 33:67, EPA File Symbol: 66330-LO, being a product consisting of 33% Idomethane and 67% Chloropicrin, is lower in concentration than MIDAS™ 98:2 for Iodomethane and lower in concentration than MIDAS™ 25:75 for Chloropicrin.

The submission included a label, CSF and application. The waiver request (MRID 46422702) was previously reviewed by TRB (Hanson, D312611, Decision No.: 352492, 15/FEB/2005). This review was for a 50:50 product containing both Idomethane and Chloropicrin, using the same rationale stated above. The bridging rationale was accepted for this product.

RECOMMENDATIONS:

TRB concurs with the Registrant's bridging argument and recommends for registration, from the acute toxicity viewpoint, of this new end-use product. There is not expected to be any synergism or potentiation of toxicity due to the lower percentages of AI's in the proposed product. The proposed product will have the most restrictive profile based on the toxicity profiles of the two registered pesticide products.

TABLE 1: Toxicity Categories for MIDAS™ 33:67, EPA File Symbol: 66330-LO and the Two Single AI End-Use Products, EPA Reg. No. 66330-43, and EPA Reg. No. 66330-42

PRODUCT	MIDAS™ 98:2, EPA Reg. No. 66330-43	MIDAS™ 25:75, EPA Reg. No. 66330-42	**MIDAS™ 33:67 EPA File Symbol: 66330-LO**
% Active Ingredient	98% Iodomethane and 2% Chloropicrin	25% Iodomethane and 75% Chloropicrin	**33% Iodomethane and 67% Chloropicrin**
Acute Oral Toxicity	LD_{50}= 117 mg/kg II MRID 45594204	LD_{50}= 77 mg/kg (females) II MRID 45641201	**Toxicity Category II**
Acute Dermal Toxicity	LD_{50}> 2000 mg/kg III MRID 45594205	LD_{50}> 2000 mg/kg III MRID 45641202	**Toxicity Category III**
Acute Inhalation Toxicity	LC_{50}= 3.60 mg/L IV MRID 00149339	LC_{50}= 0.21 mg/L II MRID 45641203	**Toxicity Category II**
Primary Eye Irritation	I MRID 45594206	I MRID 45594206	**Toxicity Category I**
Primary Dermal Irritation	II MRID 45594207	I MRID 45641204	**Toxicity Category I**
Dermal Sensitization	IS A SENSITIZER MRID 45594208	IS A SENSITIZER MRID 45641205	**IS A SENSITIZER**

Note to RM: According to the CSF the source for Idomethane is not yet registered with the agency but is under review.

LABELING:

PRODUCT ID #: **066330-00059**

PRODUCT NAME: MIDAS™ 33:67

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals:

SIGNAL WORD: DANGER

SPANISH SIGNAL WORD: PELIGRO
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Corrosive. Causes skin burns and irreversible eye damage. May be fatal if inhaled or if swallowed. Harmful if absorbed through skin. Do not breathe spray mist. Do not get in eyes, on skin, or on clothing. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and chemical-resistant gloves (such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, Viton, Selection Category E). Wear protective eyewear (goggles, face shield, or safety glasses). For handling activities, use a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSAH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, P, R or HE prefilter. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When mixing and loading wear a chemical resistant apron.

USER SAFETY RECOMMENDATIONS:

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

First Aid:

If on skin:
-Take off contaminated clothing.
-Rinse skin immediately with plenty of water for 15-20 minutes.
-Call a poison control center or doctor for treatment advice.

If in eyes:
-Hold eye open and rinse slowly and gently with water for 15-20 minutes.
-Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
-Call a poison control center or doctor for treatment advice.

If inhaled:
-Move the person to fresh air.
-If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
-Call a poison control center or doctor for further treatment advice.

If swallowed:
-Call a poison control center or doctor immediately for treatment advice.
-Have person sip a glass of water if able to swallow.
-Do not induce vomiting unless told to by a poison control center or doctor.
-Do not give anything to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

DP #: (314204)

Decision #: **354030**

DATA PACKAGE BEAN SHEET

Date: 10-Mar-2005

R01
#17886

*** Registration Information ***

Registration: 66330-LO - MIDAS 33:67

Company: 66330 - ARVESTA CORPORATION

Risk Manager: RM 21 - Mary Waller - (703) 308-9354 Room# CM-2 249

Risk Manager Reviewer: Dennis McNeilly DMCNEILL

Sent Date: _____ Calculated Due Date: _____ Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (R01) NEW AI;FOOD USE;

Ingredients: 081501, Chloropicrin(67%)

000011, Methane, iodo-(33%)

*** Data Package Information ***

Expedite: ○ Yes ● No Date Sent: 10-Mar-2005 Due Back: _____

DP Ingredient: 000011, Methane, iodo-

081501, Chloropicrin

DP Title: Acute TOX Waiver request

CSF Included: ● Yes ○ No Label Included: ● Yes ○ No Parent DP #: _____

Assigned To	Date In	Date Out
Organization: RD / TRB		
Team Name: TOX		
Reviewer Name:		
Contractor Name:		

Administrative Due Date: 25-Dec-2007

Negotiated Due Date: 3-10-06

Projected Completion Date: _____

*** Studies Sent for Review ***

No Studies

*** Additional Data Package for this Decision ***

Printed on Page 2

*** Data Package Instructions ***

The registrant is requesting a waiver of the acute tox six-pack. They have included an overview of the arguments in this package and cite a particular MRID which they state has the complete argument.

43126111

The complete argument was previously sent to TRB/TOX under 66330-LT (B. Hanson, 2/15/05)

DP#: (314204) *** Additional Data Package for this Decision *** Decision#: (354030)

DP #	Division/Branch	Date Sent	Date Due	Instructions?	CSF	label
314201	RD / TRB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	● Yes ○ No	● Yes ○ No
314201	RD / FB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	● Yes ○ No	● Yes ○ No
314202	RD / FB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314202	HED / IO	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314203	EFED / IO	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No
314203	RD / FB	10-Mar-2005	25-Dec-2007	○ Yes ○ No	○ Yes ● No	○ Yes ● No

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

February 15, 2005

MEMORANDUM

previous TRB review for 50:50

Subject:	EPA File Symbol:	66330-LT	MIDAS™ 50:50
	DP Barcode:	D312611	
	Decision No:	352492	
	PC Codes:	000011	Iodomethane
		081501	Chloropicrin

From: Breann Hanson, Toxicologist
Technical Review Branch
Registration Division (7505C)

To: Dennis McNeilly, RM Team 21
Fungicide Branch
Registration Division (7505C)

Applicant: Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

FORMULATION FROM LABEL:

Active Ingredients:			% by wt.
000011	Iodomethane	CAS No. 74-88-4	50.00%
081501	Chloropicrin	CAS No. 76-06-2	50.00%
		Total:	100.00%

ACTION REQUESTED:

The Product Manager requests:

> "The registrant has submitted a waiver request for the acute tox-six pack. Please evaluate the waiver request, and make a recommendation, as well as advise us on appropriate precautionary labeling (if we accept the waiver)."

BACKGROUND

Arvesta Corporation has submitted a new end-use product registration request for MIDAS™ 50:50, EPA File Symbol 66330-LT. The product contains Iodomethane and Chloropicrin at concentrations of 50%. The company is requesting a waiver of acute toxicity studies based on the fact that two products have already been registered which contain both ingredients; MIDAS™ 98:2, EPA Reg. No. 66330-43, containing 98% Idomethane and 2% Chloropicrin, and MIDAS™ 25:75, EPA Reg. No. 66330-42, containing 25% Iodomethane and 75% Chloropicrin. Both products have toxicity categories of I and are dermal sensitizers. The acute oral and dermal toxicity, eye irritation, dermal irritation and dermal sensitization studies (MRIDs 455942-04 through -08) for MIDAS™ 98:2, EPA Reg. No. 66330-43, were previously reviewed in a TRB memo (Hashim, EPA File Symbol: 66330-UG, D282272, Case No. 071529, 17/JUNE/2002). The acute inhalation toxicity study (MRID 45641301) was reviewed in another TRB memo (Backus, EPA File Symbol: 66330-UG, D282078, Case No. 071529, 18/JUNE/2002). The acute oral, dermal and inhalation toxicity, dermal irritation and dermal sensitization studies (MRIDs 456412-01 through -05) for MIDAS™ 98:2, EPA Reg. No. 66330-42, were previously reviewed in a TRB memo (Hashim, EPA File Symbol: 66330-UE, D282076, Case No. 071525, 20/JUNE/2002). The eye irritation study (45594206) was cited from MIDAS™ 98:2, EPA Reg. No. 66330-43.

MIDAS™ 50:50, EPA File Symbol 66330-LT, being a product consisting of 50% of both active ingredients, is lower in concentration than MIDAS™ 98:2 for Iodomethane and lower in concentration than MIDAS™ 25:75 for Chloropicrin.

The submission included a label, application and waiver request (MRID 46422702).

RECOMMENDATIONS:

TRB concurs with the Registrant's bridging argument and recommends for registration, from the acute toxicity viewpoint, of this new end-use product. There is not expected to be any synergism or potentiation of toxicity due to the lower percentages of AI's in the proposed product. The proposed product will have the most restrictive profile based on the toxicity profiles of the two registered pesticide products.

TABLE 1: Toxicity Categories for MIDAS™ 50:50, EPA File Symbol 66330-LT and the Two Single AI End-Use Products, EPA Reg. No. 66330-43, and EPA Reg. No. 66330-42

PRODUCT	MIDAS™ 98:2, EPA Reg. No. 66330-43	MIDAS™ 25:75, EPA Reg. No. 66330-42	**MIDAS™ 50:50, EPA File Symbol 66330-LT**
% Active Ingredient	98% Iodomethane and 2% Chloropicrin	25% Iodomethane and 75% Chloropicrin	**50% Iodomethane and 50% Chloropicrin**
Acute Oral Toxicity	LD_{50}= 117 mg/kg II MRID 45594204	LD_{50}= 77 mg/kg (females) II MRID 45641201	**Toxicity Category II**
Acute Dermal Toxicity	LD_{50}> 2000 mg/kg III MRID 45594205	LD_{50}> 2000 mg/kg III MRID 45641202	**Toxicity Category III**
Acute Inhalation Toxicity	LC_{50}= 3.60 mg/L IV MRID 00149339	LC_{50}= 0.21 mg/L II MRID 45641203	**Toxicity Category II**
Primary Eye Irritation	I MRID 45594206	I MRID 45594206	**Toxicity Category I**
Primary Dermal Irritation	II MRID 45594207	I MRID 45641204	**Toxicity Category I**
Dermal Sensitization	IS A SENSITIZER MRID 45594208	IS A SENSITIZER MRID 45641205	**IS A SENSITIZER**

LABELING:

PRODUCT ID #: **066330-00057**

PRODUCT NAME: MIDAS™ 50:50

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals:

SIGNAL WORD: DANGER

SPANISH SIGNAL WORD: PELIGRO
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Corrosive. Causes skin burns and irreversible eye damage. May be fatal if inhaled or if swallowed. Harmful if absorbed through skin. Do not breathe spray mist. Do not get in eyes, on skin, or on clothing. Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and chemical-resistant gloves (such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, Viton, Selection Category E). Wear protective eyewear (goggles, face shield, or safety glasses). For handling activities, use a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSAH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, P, R or HE prefilter. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When mixing and loading wear a chemical resistant apron.

USER SAFETY RECOMMENDATIONS:

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

First Aid:

If on skin:
-Take off contaminated clothing.
-Rinse skin immediately with plenty of water for 15-20 minutes.
-Call a poison control center or doctor for treatment advice.

If in eyes:
-Hold eye open and rinse slowly and gently with water for 15-20 minutes.
-Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
-Call a poison control center or doctor for treatment advice.

If inhaled:
-Move the person to fresh air.
-If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
-Call a poison control center or doctor for further treatment advice.

If swallowed:
-Call a poison control center or doctor immediately for treatment advice.
-Have person sip a glass of water if able to swallow.
-Do not induce vomiting unless told to by a poison control center or doctor.
-Do not give anything to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

Fee for Service

This package includes the following	for Division
☒ New Registration	☒ RD
☐ Amendment	☐ AD
☐ Waiver Request	☐ BPPD
☐ Voluntary Payment Request	Risk Mgr. 2/

Receipt Nos. S- 774810

EPA File Symbol/Reg. No. 66330-40

Pin-Punch Date: 2/18/05

☐ Includes changes to uses – requires routing to contractor coding

Action Code:

Requested: R31 ADMIN. DIV. $471,000

Granted: R1 Amount due: $~~[illegible]~~ 4000

VolPay Reduction:

Original Decision #:

___% D-

Parent/Child Decisions:

66330-44-D 219256 (Do not Link)

Reviewer: [signature] Date: 2/24/05

Remarks: (use back if needed)

awaiting new AI.

reduce fee associated w/ previous application

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

February 25, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

PLEASE RETURN A COPY OF THIS LETTER WITH PAYMENT

OPP Decision Number: D-354030
EPA File Symbol or Registration Number: 66330-LO
Product Name: MIDAS 33:67
EPA Receipt Date: 18-Feb-2005
EPA Company Number: 66330
Company Name: ARVESTA CORPORATION

LAURENT C. MEZIN
ARVESTA CORPORATION
100 FIRST STREET, SUITE 1700
SAN FRANCISCO, CA 94105

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application for registration. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R01

NEW AI; FOOD USE;

Please remit payment in the amount of: $ 4,000 to:

By USPS:
USEPA Washington Finance Center
Pesticide Registration Service Fee
PO Box 360277
Pittsburgh, PA 15251

By Courier:
U.S. EPA Washington Finance Center
Pesticide Registration Service Fee
C/O Mellon Client Service Center
500 Ross Street, Room 670
Box 360277
Pittsburgh, PA 15251-6277
Attn: EPA Module Supervisor
Telephone: (412) 236-2294

All payments must be in United States currency by check, bank draft, or money order drawn to the order of the Environmental Protection Agency. To ensure proper credit, please write the OPP DECISION NUMBER on your check, and enclose a copy of this letter with your payment.

You may be eligible for a full or partial waiver of the registration service fee if, for example, you qualify as a small business or are applying for a minor use, or if your application is solely associated with an IR-4 tolerance petition. Please be advised that if you intend to request a waiver, you must do so in writing within 15 days of receipt of this invoice instead of remitting the amount indicated above. OPP will not consider waiver requests after the registration service fee has been paid. Information regarding eligibility and how th request and document a fee waiver is available on the OPP Fee for Service web site at www.epa.gov/pesticides/fees.

Please send Registration Service Fee Waiver requests to:

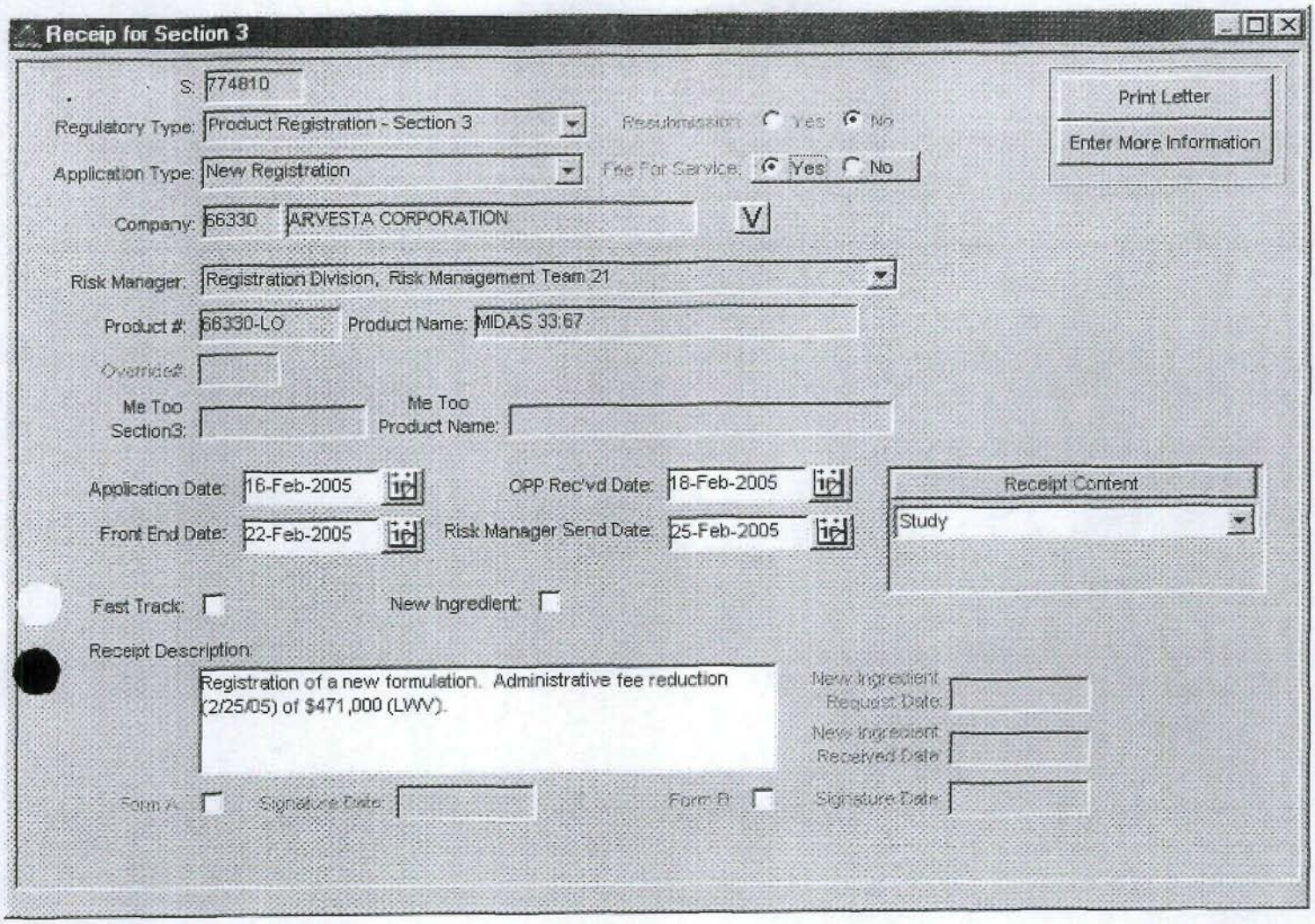
By USPS:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

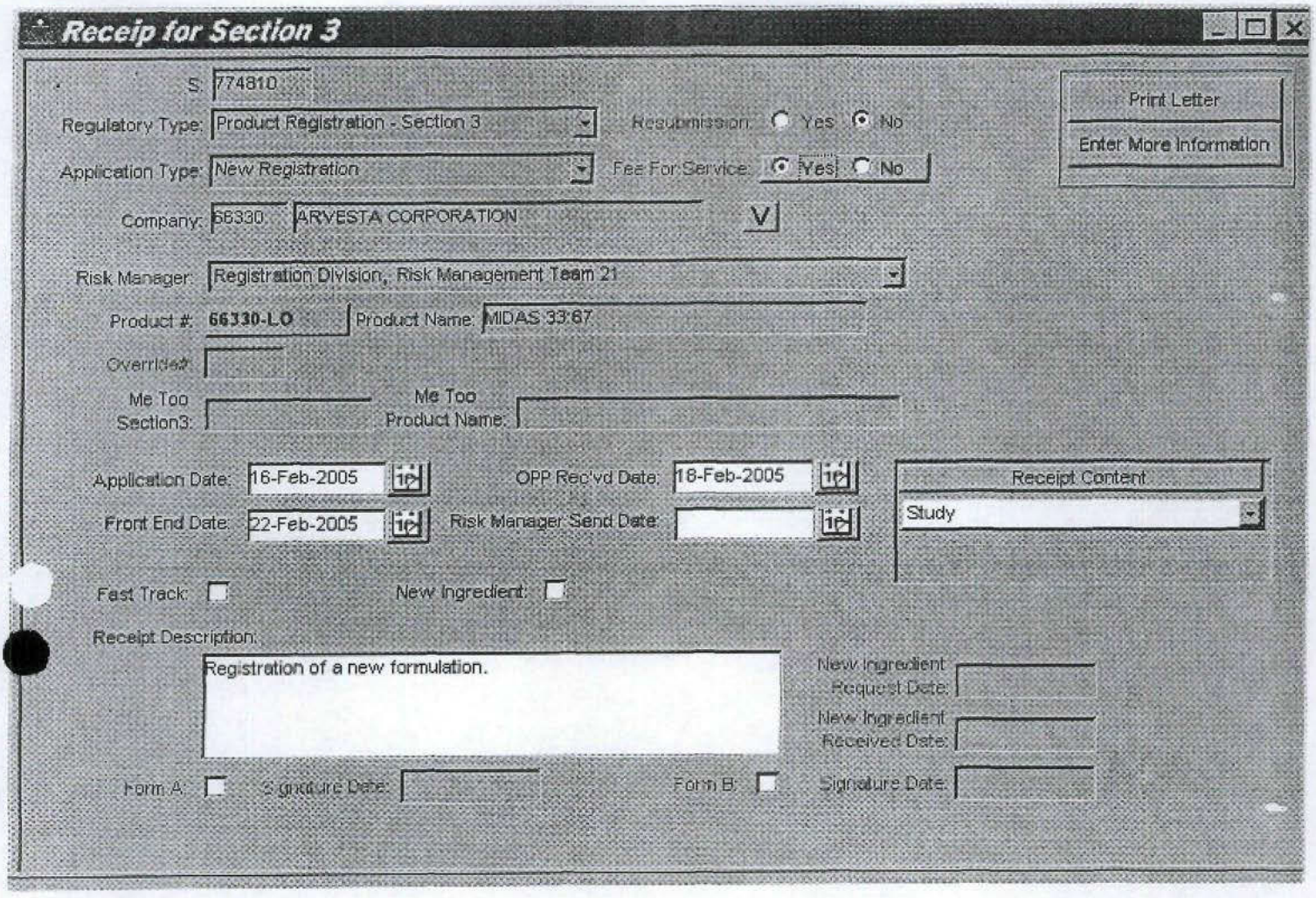
By Courier:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1801 South Bell St.
Arlington, VA 22202

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 305-6249.

Sincerely,

Front End Processing Staff
Information Resources and Services Division


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33:67
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
OPP Rec'vd Date: 18-Feb-2005
Front End Date: 22-Feb-2005
Risk Manager Send Date: 25-Feb-2005
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation. Administrative fee reduction (2/25/05) of $471,000 (LWV).
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33:67
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
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Risk Manager Send Date:
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation.
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:

Arvesta

February 16, 2005

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

RE: MIDAS 33:67 (EPA Reg. No. 66330-??)
Submission for registration of a new formulation
Waiver and rationale for waiver of acute toxicology studies

Dear Ms Waller:

Included with this cover letter is a submission for the registration of the new end-use product, MIDAS 33:67.

MIDAS 33:67 contains the currently registered active ingredient **chloropicrin** (67.0 %) and an active ingredient, **iodomethane technical**, currently under review (33%).

All uses of this new formulation are already common to those of the previously submitted products. There are no food uses.

With respect to PRIA and the fee associated with this submission, we believe the appropriate review/fee category is as follows:

R31: New product; non fast track; Fee: $4,000.00

In support of this submission, the following data and documents are enclosed:

Volume 1. Administrative Volume.

1. The present cover letter;
2. EPA Form 8570-1: Application for Registration;
3. EPA Form 8570-4: Confidential Statement of Formula;
4. Proposed Label (5 copies);
5. EPA Form 8570-34: Certification with Respect to Citation of Data;
6. EPA Data Matrix; and
7. Transmittal document.

The following volume is submitted in triplicate:

Volume 01: U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504).

Waiver request overview:

EPA is currently reviewing the submissions for registration of two iodomethane end-use products, MIDAS 98:2 containing 98% iodomethane and 2% chloropicrin as a warning agent, and MIDAS 25:75, containing 25% iodomethane and 75% chloropicrin. Iodomethane is a new active ingredient while chloropicrin is currently registered by the agency. In previous discussions with EPA, Arvesta Corporation has discussed the viability of using the results of acute toxicity data from the two iodomethane end-use formulations currently under review, to "bridge" the acute toxicity data requirements for registration of additional iodomethane end-use formulations containing intermediate proportions of both active ingredients. In these discussions, the agency agreed, in principle, that the requirements for new acute toxicity data for the formulations could be waived if the precautionary statements for these new formulations were based on the most severe results from the acute toxicity studies that have been performed on the previously submitted product formulation.
Arvesta Corporation has previously a request to have these requirements waived and includes a full rationale to support the request, consistent with our understanding with the agency. This request included the two formulations presented herein, and is titled as follows:

Iodomethane: Data Waiver Request Health Effects: Acute Toxicity Data Use Existing Studies as Surrogate/Bridge (MRID # 46422702).

Should you have any questions, please contact me at (415) 778 4844.

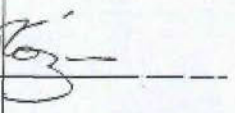
Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

TRANSMITTAL DOCUMENT FOR:
APPLICATION FOR REGISTRATION OF **MIDAS 33:67**
EPA File No. 66330-??
Submission of a new formulated product
December 03, 2004 -- Page 1 of 1

Data Submitter:
Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

Attn: Laurent C. Mézin, Ph.D.
Tel: (415) 778 4844

Signature: 

Document	Volume No.	Test Subs.	MRID No.
ADMINISTRATIVE VOLUME			
Cover letter		n/a	
Transmittal Document		n/a	
VOLUME 01			
Cornes, S. R., (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Unpublished Report. Lab No. 04-0236-G1 & G2, 41 p.	1	EUP	

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [✓] Registration
- [ ] Amendment
- [ ] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
66330- LO	Mary Waller	[ ] None [✓] Restricted
4. Company/Product (Name)	**PM#**	
MIDAS 33:67	21	

5. Name and Address of Applicant *(Include ZIP Code)*

ARVESTA Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. _____

Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [ ] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [✓] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of new formulated product containing 33% iodomethane and 67% chloropicrin.

PRIA category R31: New product; non-fast track

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [✓] No	[ ] Yes [✓] No	[ ] Yes [✓] No	[✓] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)
Certification must be submitted	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[✓] Label [ ] Container	25, 110 and 400 gallons	[✓]

6. Manner in Which Label is Affixed to Product

- [ ] Lithograph
- [✓] Paper glued
- [ ] Stenciled
- [ ] Other _____

Section - IV

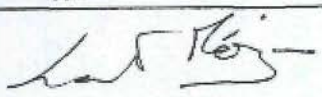
1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Laurent C. Mézin, Ph.D.	Project Manager	(415) 778 4844

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received
(Stamped)

2. Signature	3. Title	5. Date
	Project Manager	February 16, 2005
4. Typed Name Laurent C. Mézin		

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67
Ingredient: IODOMETHANE, CHLOROPICRIN	

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.0000	Product Chemistry		Arvesta Corporation	OWN	
830.1550	Product Identity and Composition		Arvesta Corporation	OWN	
830.1600	Description of Materials Used to Produce Product		Arvesta Corporation	OWN	
830.1650	Description of Formulation Process		Arvesta Corporation	OWN	
830.1670	Discussion of Formation of Impurities		Arvesta Corporation	OWN	
830.1700	Preliminary Analysis		Arvesta Corporation	OWN	
830.1750	Certified Limits		Arvesta Corporation	OWN	
830.1800	Enforcement of Analytical Method		Arvesta Corporation	OWN	
830.1900	Submittal of Standards		Arvesta Corporation	OWN	
830.6302	Color		Arvesta Corporation	OWN	
830.6303	Physical State		Arvesta Corporation	OWN	
830.6304	Odor		Arvesta Corporation	OWN	
830.6314	Oxidation/Reduction: Chemical Compatibility		Arvesta Corporation	OWN	
830.6315	Flammability		Arvesta Corporation	OWN	
830.6316	Explodability		Arvesta Corporation	OWN	
830.6317	Storage Stability		Arvesta Corporation	OWN	

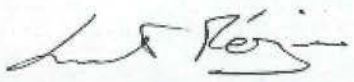
Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb 16, 2005

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67
Ingredient: IODOMETHANE, CHLOROPICRIN	

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6319	Miscibility		Arvesta Corporation	OWN	
830.6320	Corrosion Characteristics		Arvesta Corporation	OWN	
830.6321	Dielectric Breakdown Voltage		Arvesta Corporation	OWN	
830.7000	pH		Arvesta Corporation	OWN	
830.7100	Viscosity		Arvesta Corporation	OWN	
830.7300	Density/Relative Density/Bulk Density		Arvesta Corporation	OWN	
870.0000	Acute Health Effects		Arvesta Corporation	OWN	Waiver
870.1100	Acute Oral Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1200	Acute Dermal Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1300	Acute Inhalation Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.2400	Acute Eye Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2500	Acute Dermal Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2600	Skin Sensitization	46422702	Arvesta Corporation	OWN	Waiver

Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb. 16, 2005

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RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

- The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
  - Skull and crossbones symbol.
  - "DANGER/PELIGRO".
  - "Area under fumigation. DO NOT ENTER/NO ENTRE."
  - "Iodomethane and Chloropicrin Fumigants in Use."
  - The date and time of fumigation,
  - Name of this product, and
  - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia*. It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

MIDAS is a trademark of Arvesta Corporation

Please add this letter to the file. Thanks Mary

Arvesta

January 31, 2005

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

RE: IODOMETHANE and MIDAS formulations(EPA Reg. No. 66330-UU, -UG, -UE and others)
Submission of latest labels

Dear Ms Waller:

On January 14th and 19th, 2005, Arvesta Corporation submitted to the US EPA the last of the final reports commissioned for the development of a Computational Fluid Dynamic, Physiologically Based Pharmacokinetics (CFD-PBPK) models, the PERFUM models and Risk Assessment. The Arvesta "Iodomethane Human Health Risk Assessment" contained in its appendix labels taking into account the latest model refinements.

As these labels were not submitted to the agency independently, I am including them in triplicate with this cover letter. The following formulation labels are included:

Formulation	% iodomethane	% Chloropicrin	% adjuvant TM-456
MIDAS 25:75	25	75 -UE	0
MIDAS 33:67	33	67	0
MIDAS EC GOLD	33	62	5
MIDAS 50:50	50	50	0
MIDAS 98:2	98	2 -UG	0

Should you have any questions, please contact me at (415) 778 4844.

Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

Tech UU

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

  - The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
    - Skull and crossbones symbol.
    - "DANGER/PELIGRO".
    - "Area under fumigation. DO NOT ENTER/NO ENTRE."
    - "Iodomethane and Chloropicrin Fumigants in Use."
    - The date and time of fumigation,
    - Name of this product, and
    - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia.* It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

- The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
  - Skull and crossbones symbol.
  - "DANGER/PELIGRO".
  - "Area under fumigation. DO NOT ENTER/NO ENTRE."
  - "Iodomethane and Chloropicrin Fumigants in Use."
  - The date and time of fumigation,
  - Name of this product, and
  - The name, address, and telephone number of the applicator.

- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia.* It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

  - The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
    - Skull and crossbones symbol.
    - "DANGER/PELIGRO".
    - "Area under fumigation. DO NOT ENTER/NO ENTRE."
    - "Iodomethane and Chloropicrin Fumigants in Use."
    - The date and time of fumigation,
    - Name of this product, and
    - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia.* It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

February 23, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

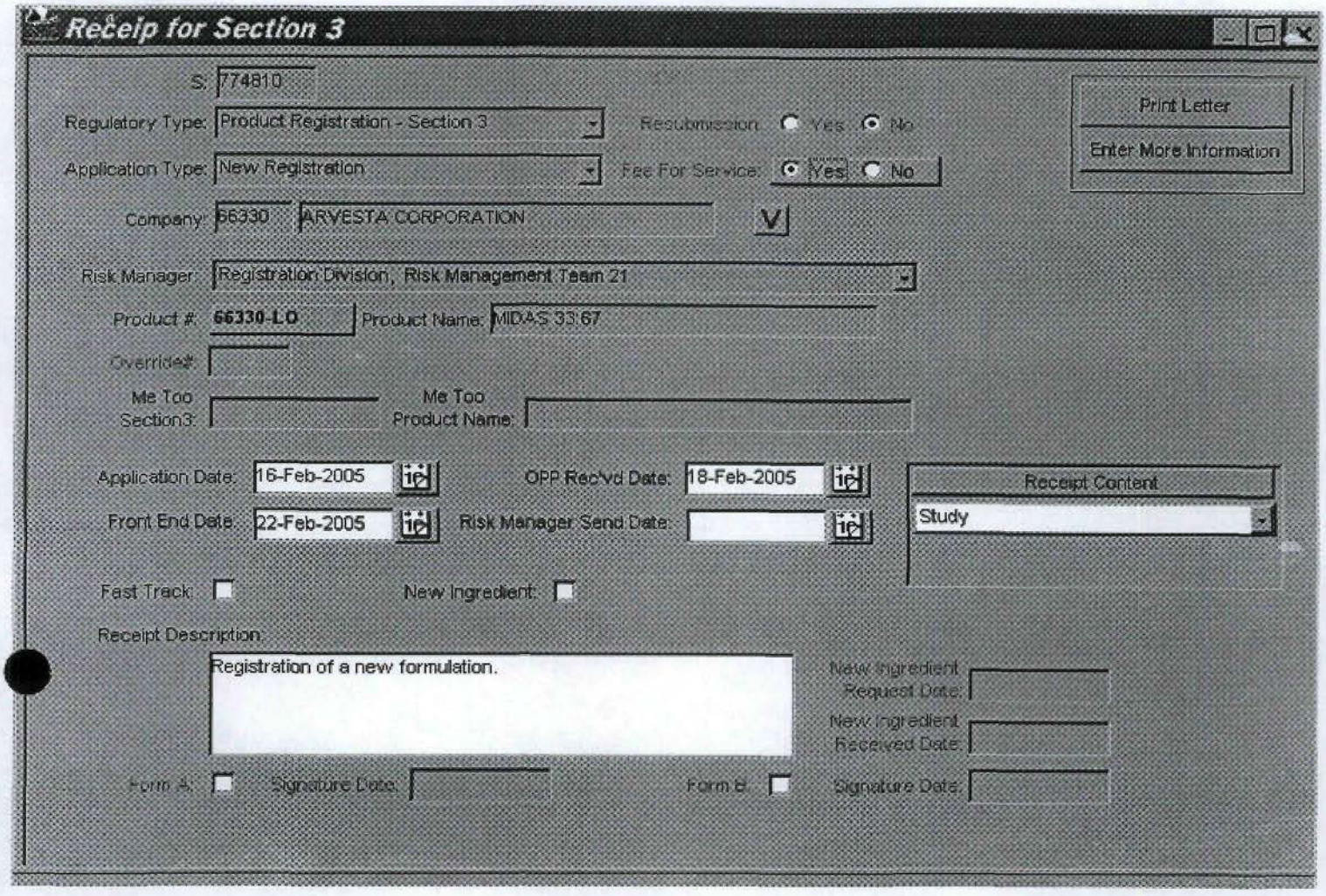
ARVESTA CORPORATION
100 FIRST STREET, SUITE 1700
SAN FRANCISCO, CA 94105

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 18-FEB-05. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

LT


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33.67
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
OPP Rec'vd Date: 18-Feb-2005
Front End Date: 22-Feb-2005
Risk Manager Send Date:
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation.
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:

464764-00

Arvesta

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

February 16, 2005

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

RE: MIDAS 33:67 (EPA Reg. No. 66330-??) LO
Submission for registration of a new formulation
Waiver and rationale for waiver of acute toxicology studies

Dear Ms Waller:

Included with this cover letter is a submission for the registration of the new end-use product, MIDAS 33:67.

MIDAS 33:67 contains the currently registered active ingredient **chloropicrin** (67.0 %) and an active ingredient, **iodomethane technical**, currently under review (33%).

All uses of this new formulation are already common to those of the previously submitted products. There are no food uses.

With respect to PRIA and the fee associated with this submission, we believe the appropriate review/fee category is as follows:

R31: New product; non fast track; Fee: $4,000.00

In support of this submission, the following data and documents are enclosed:

Volume 1. Administrative Volume.

1. The present cover letter;
2. EPA Form 8570-1: Application for Registration;
3. EPA Form 8570-4: Confidential Statement of Formula;
4. Proposed Label (5 copies);
5. EPA Form 8570-34: Certification with Respect to Citation of Data;
6. EPA Data Matrix; and
7. Transmittal document.

The following volume is submitted in triplicate:

Volume 01: U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504).

Waiver request overview:

EPA is currently reviewing the submissions for registration of two iodomethane end-use products, MIDAS 98:2 containing 98% iodomethane and 2% chloropicrin as a warning agent, and MIDAS 25:75, containing 25% iodomethane and 75% chloropicrin. Iodomethane is a new active ingredient while chloropicrin is currently registered by the agency. In previous discussions with EPA, Arvesta Corporation has discussed the viability of using the results of acute toxicity data from the two iodomethane end-use formulations currently under review, to "bridge" the acute toxicity data requirements for registration of additional iodomethane end-use formulations containing intermediate proportions of both active ingredients. In these discussions, the agency agreed, in principle, that the requirements for new acute toxicity data for the formulations could be waived if the precautionary statements for these new formulations were based on the most severe results from the acute toxicity studies that have been performed on the previously submitted product formulation.
Arvesta Corporation has previously a request to have these requirements waived and includes a full rationale to support the request, consistent with our understanding with the agency. This request included the two formulations presented herein, and is titled as follows:

> *Iodomethane: Data Waiver Request Health Effects: Acute Toxicity Data Use Existing Studies as Surrogate/Bridge (MRID # 46422702).*

Should you have any questions, please contact me at (415) 778 4844.

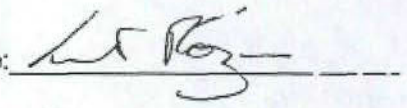
Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

TRANSMITTAL DOCUMENT FOR:
APPLICATION FOR REGISTRATION OF **MIDAS 33:67**
EPA File No. 66330-??
Submission of a new formulated product
December 03, 2004 -- Page 1 of 1

Data Submitter:
Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

Attn: Laurent C. Mézin, Ph.D.
Tel: (415) 778 4844

Signature: 

Document	Volume No.	Test Subs.	MRID No.
ADMINISTRATIVE VOLUME			
Cover letter		n/a	
Transmittal Document		n/a	
VOLUME 01			
Cornes, S. R., (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Unpublished Report. Lab No. 04-0236-G1 & G2, 41 p.	1	EUP	**46476401**

Fee for Service

This package includes the following	for Division
[X] New Registration	[X] RD
[ ] Amendment	[ ] AD
[ ] Waiver Request	[ ] BPPD
[ ] Voluntary Payment Request	Risk Mgr. 2/

Receipt Nos. S- 774810

EPA File Symbol/Reg. No. 66330-40

Pin-Punch Date: 2/18/05

[ ] Includes changes to uses – requires routing to contractor coding

Action Code:

Requested: R31 ADMIN. DIS. $ 471,000

Granted: R1. Amount due: $ ~~[illegible]~~ 4000

VolPay Reduction:

Original Decision #:

___% D-

Parent/Child Decisions:

66330-44-D 219256 (Do not Link)

Reviewer: [signature] Date: 2/24/05

Remarks: (use back if needed)

waiving new AI.

reduce fee associated w/ previous application

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

February 25, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

PLEASE RETURN A COPY OF THIS LETTER WITH PAYMENT

OPP Decision Number: D-354030
EPA File Symbol or Registration Number: 66330-LO
Product Name: MIDAS 33:67
EPA Receipt Date: 18-Feb-2005
EPA Company Number: 66330
Company Name: ARVESTA CORPORATION

LAURENT C. MEZIN
ARVESTA CORPORATION
100 FIRST STREET, SUITE 1700
SAN FRANCISCO, CA 94105

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application for registration. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R01

NEW AI; FOOD USE;

Please remit payment in the amount of: $ 4,000 to:

By USPS:
USEPA Washington Finance Center
Pesticide Registration Service Fee
PO Box 360277
Pittsburgh, PA 15251

By Courier:
U.S. EPA Washington Finance Center
Pesticide Registration Service Fee
C/O Mellon Client Service Center
500 Ross Street, Room 670
Box 360277
Pittsburgh, PA 15251-6277
Attn: EPA Module Supervisor
Telephone: (412) 236-2294

All payments must be in United States currency by check, bank draft, or money order drawn to the order of the Environmental Protection Agency. To ensure proper credit, please write the OPP DECISION NUMBER on your check, and enclose a copy of this letter with your payment.

You may be eligible for a full or partial waiver of the registration service fee if, for example, you qualify as a small business or are applying for a minor use, or if your application is solely associated with an IR-4 tolerance petition. Please be advised that if you intend to request a waiver, you must do so in writing within 15 days of receipt of this invoice instead of remitting the amount indicated above. OPP will not consider waiver requests after the registration service fee has been paid. Information regarding eligibility and how th request and document a fee waiver is available on the OPP Fee for Service web site at www.epa.gov/pesticides/fees.

Please send Registration Service Fee Waiver requests to:

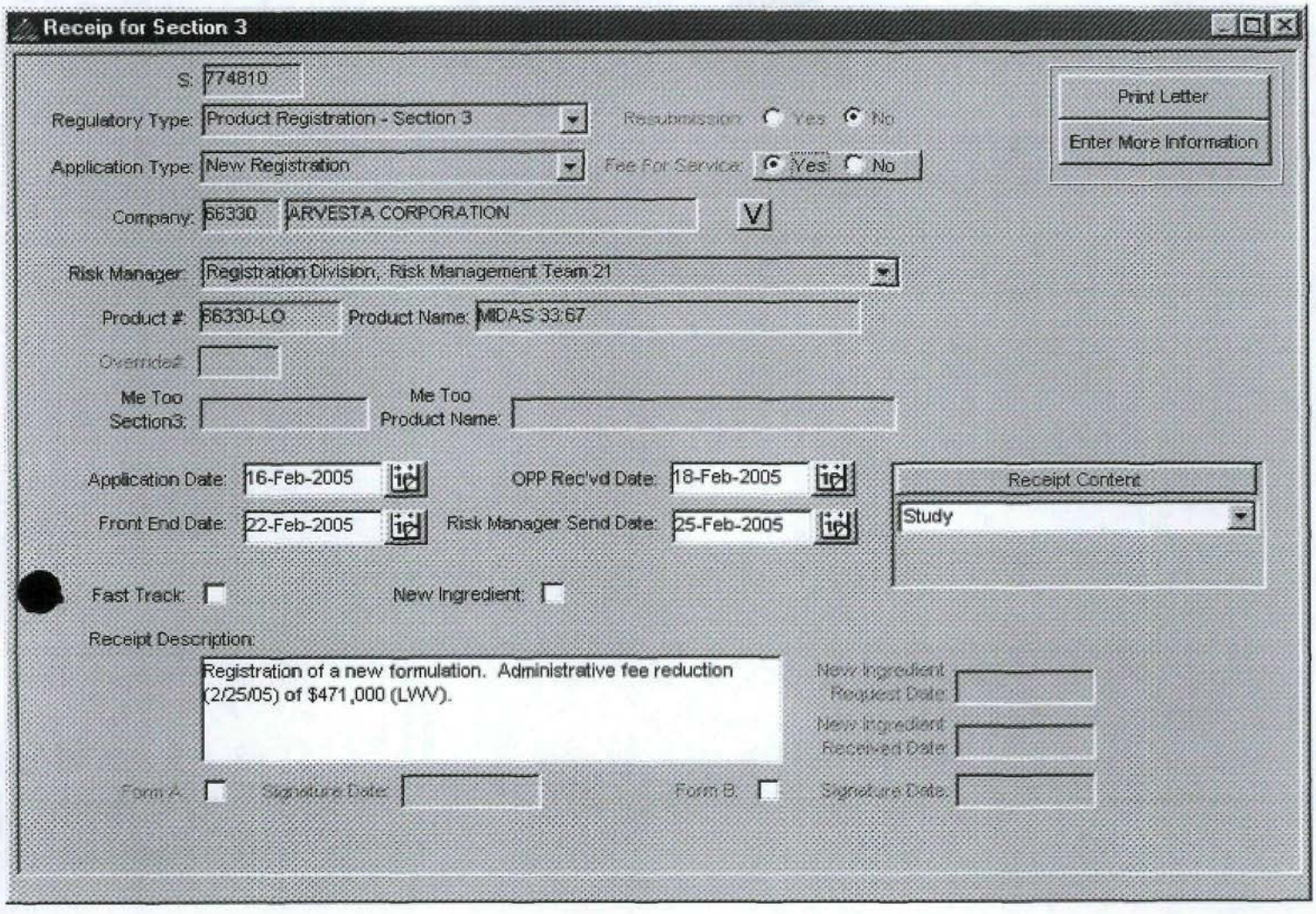
By USPS:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20460

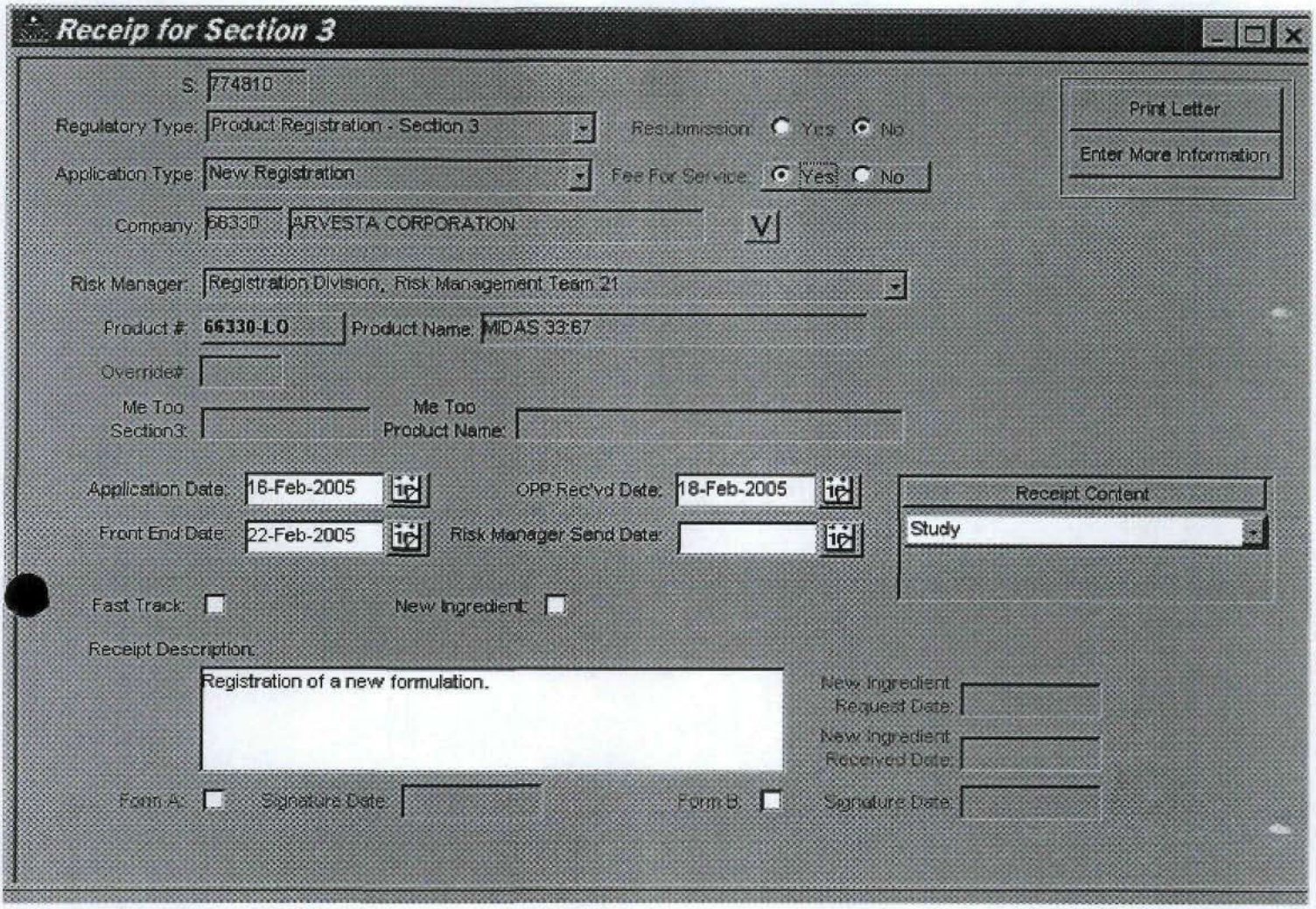
By Courier:
Document Processing Desk (WAIVER)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1801 South Bell St.
Arlington, VA 22202

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 305-6249.

Sincerely,

Front End Processing Staff
Information Resources and Services Division


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
Company: 66330 ARVESTA CORPORATION
Print Letter
Enter More Information
Risk Manager: Registration Division, Risk Management Team 21
Product #: 66330-LO
Product Name: MIDAS 33:67
Override?:
Me Too Section3:
Me Too Product Name:
Application Date: 16-Feb-2005
OPP Rec'vd Date: 18-Feb-2005
Front End Date: 22-Feb-2005
Risk Manager Send Date: 25-Feb-2005
Receipt Content
Study
Fast Track:
New Ingredient:
Receipt Description:
Registration of a new formulation. Administrative fee reduction (2/25/05) of $471,000 (LWV).
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:


Receip for Section 3
S: 774810
Regulatory Type: Product Registration - Section 3
Resubmission: Yes No
Application Type: New Registration
Fee For Service: Yes No
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Company: 66330 ARVESTA CORPORATION
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Receipt Description:
Registration of a new formulation.
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:

Arvesta

February 16, 2005

Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
Tel (415) 536-3480
Fax (415) 284-9883
www.arvesta.com

Office of Pesticide Programs
Document Processing Desk (APPL)
U.S. Environmental Protection Agency
Room 259, Crystal Mall 2
1801 Bell Street
Arlington, VA 22202

Attn: Mary Waller
Product Manager 21
(703) 308 9354

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Submission for registration of a new formulation
Waiver and rationale for waiver of acute toxicology studies

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Should you have any questions, please contact me at (415) 778 4844.

Best regards,

Laurent C. Mézin, Ph.D.
Project Manager
Registrations and Regulatory Affairs
Arvesta Corporation
(415) 778 4844

TRANSMITTAL DOCUMENT FOR:
APPLICATION FOR REGISTRATION OF **MIDAS 33:67**
EPA File No. 66330-??
Submission of a new formulated product
December 03, 2004 -- Page 1 of 1

Data Submitter:
Arvesta Corporation
100 First Street, Suite 1700
San Francisco, CA 94105

Attn: Laurent C. Mézin, Ph.D.
Tel: (415) 778 4844

Signature:

Document	Volume No.	Test Subs.	MRID No.
ADMINISTRATIVE VOLUME			
Cover letter		n/a	
Transmittal Document		n/a	
VOLUME 01			
Cornes, S. R., (2005) U.S. EPA Product Properties Test Guidelines - Group A and B of MIDAS 33:67 (TM-42504). Unpublished Report. Lab No. 04-0236-G1 & G2, 41 p.	1	EUP	

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [✓] Registration
- [ ] Amendment
- [ ] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number: 66330- *LO*

2. EPA Product Manager: Mary Waller

3. Proposed Classification: [ ] None [✓] Restricted

4. Company/Product (Name): MIDAS 33:67

PM#: 21

5. Name and Address of Applicant *(Include ZIP Code)*
ARVESTA Corporation
100 First Street, Suite 1700
San Francisco, CA 94105
[ ] *Check if this is a new address*

6. **Expedited Reveiw.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:
EPA Reg. No. _____
Product Name _____

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [ ] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [✓] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Submission of new formulated product containing 33% iodomethane and 67% chloropicrin.

PRIA category R31: New product; non-fast track

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [✓] No	[ ] Yes [✓] No	[ ] Yes [✓] No	[✓] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information: [✓] Label [ ] Container

4. Size(s) Retail Container: 25, 110 and 400 gallons

5. Location of Label Directions: [✓]

6. Manner in Which Label is Affixed to Product: [ ] Lithograph [✓] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Laurent C. Mézin, Ph.D.	Project Manager	(415) 778 4844

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature: *Laurent Mézin*

3. Title: Project Manager

4. Typed Name: Laurent C. Mézin

5. Date: February 16, 2005

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67

Ingredient: IODOMETHANE, CHLOROPICRIN

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.0000	Product Chemistry		Arvesta Corporation	OWN	
830.1550	Product Identity and Composition		Arvesta Corporation	OWN	
830.1600	Description of Materials Used to Produce Product		Arvesta Corporation	OWN	
830.1650	Description of Formulation Process		Arvesta Corporation	OWN	
830.1670	Discussion of Formation of Impurities		Arvesta Corporation	OWN	
830.1700	Preliminary Analysis		Arvesta Corporation	OWN	
830.1750	Certified Limits		Arvesta Corporation	OWN	
830.1800	Enforcement of Analytical Method		Arvesta Corporation	OWN	
830.1900	Submittal of Standards		Arvesta Corporation	OWN	
830.6302	Color		Arvesta Corporation	OWN	
830.6303	Physical State		Arvesta Corporation	OWN	
830.6304	Odor		Arvesta Corporation	OWN	
830.6314	Oxidation/Reduction: Chemical Compatibility		Arvesta Corporation	OWN	
830.6315	Flammability		Arvesta Corporation	OWN	
830.6316	Explodability		Arvesta Corporation	OWN	
830.6317	Storage Stability		Arvesta Corporation	OWN	

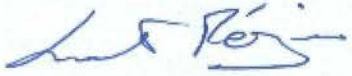
Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb. 16, 2005

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67

Ingredient: IODOMETHANE, CHLOROPICRIN

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.6319	Miscibility		Arvesta Corporation	OWN	
830.6320	Corrosion Characteristics		Arvesta Corporation	OWN	
830.6321	Dielectric Breakdown Voltage		Arvesta Corporation	OWN	
830.7000	pH		Arvesta Corporation	OWN	
830.7100	Viscosity		Arvesta Corporation	OWN	
830.7300	Density/Relative Density/Bulk Density		Arvesta Corporation	OWN	
870.0000	Acute Health Effects		Arvesta Corporation	OWN	Waiver
870.1100	Acute Oral Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1200	Acute Dermal Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.1300	Acute Inhalation Toxicity	46422702	Arvesta Corporation	OWN	Waiver
870.2400	Acute Eye Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2500	Acute Dermal Irritation	46422702	Arvesta Corporation	OWN	Waiver
870.2600	Skin Sensitization	46422702	Arvesta Corporation	OWN	Waiver

Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb. 16, 2005

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RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

- The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
  - Skull and crossbones symbol.
  - "DANGER/PELIGRO".
  - "Area under fumigation. DO NOT ENTER/NO ENTRE."
  - "Iodomethane and Chloropicrin Fumigants in Use."
  - The date and time of fumigation,
  - Name of this product, and
  - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia.* It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

MIDAS is a trademark of Arvesta Corporation

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

- The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
  - Skull and crossbones symbol.
  - "DANGER/PELIGRO".
  - "Area under fumigation. DO NOT ENTER/NO ENTRE."
  - "Iodomethane and Chloropicrin Fumigants in Use."
  - The date and time of fumigation,
  - Name of this product, and
  - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia.* It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

MIDAS is a trademark of Arvesta Corporation

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY
For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

- The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
  - Skull and crossbones symbol.
  - "DANGER/PELIGRO".
  - "Area under fumigation. DO NOT ENTER/NO ENTRE."
  - "Iodomethane and Chloropicrin Fumigants in Use."
  - The date and time of fumigation,
  - Name of this product, and
  - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia*. It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

RESTRICTED USE PESTICIDE
DUE TO ACUTE TOXICITY

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

MIDAS™ 33:67

For Pre-Plant Fumigations of Fields Intended for Commercial Production of Various Crops, Ornamentals, Bushes, Trees and Vines for the Control of Soil-Borne Pests Including Weed Seeds, Nematodes, Insects, and Diseases.

ACTIVE INGREDIENTS:

Iodomethane	33.00%
Chloropicrin	67.00%
TOTAL:	100.00%

One gallon weighs 15.1 pounds (5.0 pounds Iodomethane and 10.1 pounds Chloropicrin).

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detaille. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If on skin	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-hour chemical emergency (spill, leak, fire or accident) assistance: Call CHEMTREC at 1-800-424-9300.

For 24-hour emergency medical assistance: Call 1-800-228-5635 Ext. 174

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Symptoms of overexposure may include irritation to eyes, skin, and respiratory system, shortness of breath, nausea, vomiting, dizziness, ataxia, slurred speech, drowsiness, blurred vision, staggering gait and mental imbalance, with probable recovery after period of no exposure. Treatment is symptomatic.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

EPA Reg. No.: 66330 - ____ Net Contents _____
EPA Est. No.: ___ - __

Arvesta Corporation
100 First St., Suite 1700
San Francisco, CA 94105

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Corrosive to skin. Causes skin burns. May be fatal if inhaled or swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe vapor. Wear protective face shield, loose fitting or well ventilated long-sleeved shirt, long pants, and shoes plus socks. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. If clothing or absorbent materials (e.g. leather) have been drenched or heavily contaminated with this product, discard these items – do not reuse them. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product contains chloropicrin, a poisonous liquid or vapor. Inhalation of vapors may be fatal. Chloropicrin is readily identified by smell. Exposure to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation is evident or higher concentrations may cause painful irritation to the eyes or temporary blindness. Liquid will cause chemical burns to skin or eyes. Do not get on skin, in eyes, or on clothing. Chloropicrin fumigant has the capacity to cause marked irritation to the upper respiratory tract and is a strong lachrymator (tear producing eye irritant). Low concentrations, below those necessary to cause serious systemic intoxication, are capable of causing severely painful eye irritation, hence will not be voluntarily tolerated. However, the effect may be so powerful that a person may

become temporarily blinded and panic-stricken and that in turn may lead to accidents.

AIR CONCENTRATION LEVEL

The acceptable air concentration for persons exposed to chloropicrin is 0.1 ppm (0.7 mg/m^3) and the concentration for iodomethane is 0.19 ppm (1.10 mg/m^3). Persons involved in the application of MIDAS 33:67 or in reentry into treated fields may be exposed to the vapors of one or both of these active ingredients, dependent on such factors as the weather (e.g., temperature, wind, rain) and the condition of the soil. Air concentrations of chloropicrin and iodomethane are measured with direct reading devices, such as Kitigawa or Sensidyne tubes, certified for chloropicrin or iodomethane. If the air concentration exceeds 0.1 ppm chloropicrin or 0.19 ppm iodomethane, an air-purifying respirator must be worn. If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane, an air-supplying respirator or self-contained breathing apparatus must be worn.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Loose fitting or well ventilated long-sleeved shirt and long pants.
- Shoes plus socks.
- It is prudent to wear an appropriate respirator whenever applying chemical fumigants such as iodomethane and chloropicrin, however, for MIDAS 33:67, personal respiratory protection devices are only required under the following circumstances: If within the working area, at any time, the air concentration of chloropicrin exceeds 0.1 ppm or the air concentration of iodomethane exceeds 0.19 ppm, applicators and other handlers must wear either (a) a respirator with a 3M Brand No. 60928 cartridge filter, or equivalent (MSHA/NIOSH approved number prefix TC-23C), (b) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) or (c) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F). If the air concentration exceeds 4 ppm chloropicrin or 5 ppm iodomethane at any time, or if direct reading devices are not available for determining the air concentrations in the field, applicators and other handlers must wear (a) a supplied-air respirator (MSHA/NIOSH approval number prefix TS-19C) OR (b) a self-contained breathing apparatus (SCBA)(MSHA/NIOSH approval number prefix TC-13F).
- Drivers may use a closed cab equipped with an approved iodomethane/ chloropicrin adsorptive vapor filter in lieu of a personal respiratory protection device. This iodomethane/chloropicrin filter must be installed and changed according to the manufacturer's specifications.
- Drivers may use tractor mounted working area air fan dilution system in lieu of a personal respiratory protection device.
- When handling the liquid product (e.g. the mixer/loader), full face shield or safety glasses with brow, temple and side protection is required. Do NOT wear goggles.

A respirator of the type specified above must be available during applications of MIDAS 33:67 and will be required for entry into an affected area in the event of a leak or spill.

ENGINEERING CONTROL REQUIREMENTS

MIDAS 33:67 must be transferred through connecting hoses, pipes, and/or couplings sufficiently tight to prevent workers or other persons from coming in contact with the liquid.

- All hoses, piping, and tanks used in connection with this product shall be of a type appropriate for use under the pressure and vacuum conditions to be encountered.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of product when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move the product must not exceed the manufacturer's maximum pressure specifications.

USER SAFETY REQUIREMENTS

- Do not wear jewelry, gloves, goggles, tight clothing or any rubber protective clothing/boots that can trap iodomethane or chloropicrin vapors against your skin. Iodomethane and chloropicrin vapors can be trapped inside clothing and cause skin injury.
- Remove all clothing that comes in contact with liquid material at once.
- Aerate all affected clothing thoroughly prior to washing with hot water and detergent.
- Discard any clothing or absorbent materials (e.g. leather), that have been drenched or heavily contaminated with this product. Do not reuse them.
- Follow PPE manufacturer's instructions for cleaning / maintaining protective eyewear and respirators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. If clothing is drenched or heavily contaminated with this product, discard clothing or absorbent materials (e.g. leather) – do not reuse them.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NDPES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat, open flames, or sparking electrical equipment. Do not use application devices containing natural rubber, aluminum, magnesium or their alloys.

STORAGE, HANDLING AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a dry, cool, well-ventilated area under lock and key. Post as a pesticide storage area.

Handling: Product cylinders should not be subjected to rough handling or mechanical shock such as dropping, bumping, dragging or sliding. Do not use rope slings, hooks, tongs, or similar devices to unload cylinders. Transport cylinders using hand truck, fork truck or other device to which the cylinder can be firmly secured.

Do not remove valve protection bonnet and safety cap until immediately before use. Replace safety cap and valve protection bonnet when cylinder is not in use.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance, or follow the label instructions for return of partially empty containers.

Return of Containers: This pesticide container is the property of the manufacturer or distributor where it was purchased and should be returned promptly by collect freight. Do not ship containers without safety caps or valve protection bonnets. When a cylinder is partially full and there is no further requirement for the product, contact the manufacturer or distributor for return instructions. Containers should never be refilled by the consumer or used for any other product or purpose.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Entry Restrictions:
Entry (including early entry that would otherwise be permitted under the WPS) by any person - other than a correctly trained and equipped handler who is performing a task that is permitted by this labeling – is PROHIBITED from the start of the application until 48 hours after application and the air concentration of chloropicrin is measured to be less than 0.1 ppm. If tarps are used for the application, non-handler entry is prohibited while tarps are being removed.

Notification at Entrances to Treated Areas:
Notify all workers of the fumigation verbally and by posting warning signs at entrances to treated areas. The signs must bear the skull and crossbones symbol and state:

(1) "DANGER/PELIGRO"
(2) "Areas under fumigation, DO NOT ENTER/NO ENTRE"
(3) Iodomethane and Chloropicrin Fumigants In Use
(4) Date and time of fumigation
(5) Name of this product, and
(6) Name, address, and telephone number of the applicator.

Post these fumigant warning signs instead of the WPS signs for this application, but follow all WPS requirements pertaining to location, legibility, size and timing of posting and removal. These fumigant warning signs shall be posted for no less than 48 hours.

Notification for Occupied Areas Adjacent to Treated Fields (Buffer Zones):
During the 24 hour period following application of MIDAS 33:67, it is required that the user prohibit persons from being present in areas adjacent to the treated field, as described in this section. These adjacent areas, where persons are restricted during the 24 hours following application, are called "Buffer Zones". The factors that trigger the need for Buffer Zones, and the size and shape of these Buffer Zones, are determined by following the Steps provided below.

The activities that are prohibited for 24 hours within a Buffer Zone include any activities that result in a person being present within the Buffer Zones for more than 1 hour during the 24 hour period following application. Examples of activities that are restricted are work or recreation within a Buffer Zone, or occupation of structures that are within a Buffer Zone for more than a total of 1 hour during the 24 hour period following application. Examples of activities that are not included are driving past the treated field or occupying a structure that is not within the Buffer Zone.

Follow these steps to determine whether a Buffer Zone must be established and determine what the size and shape of the Buffer Zone will be:

Step 1 – Need For Buffer Zone:

- If there is a reasonable expectation that persons will be present at locations adjacent to the treated field for more than a total of 1 hour during the 24 hour period following the application, then a Buffer Zone is required. Calculate the Buffer Zone distance (Step 2) then adjust for application rate (Step 3) and prevailing wind (Step 4), if applicable. Then re-determine the need for a Buffer Zone (Step 5).

- For all applications where a Buffer Zone is required, the minimum Buffer Zone size shall extend 25 feet from the edge of the treated field.

Step 2 – Determine Buffer Zone Distance:

- For Applications Up to 5 Acres per Day: The Buffer Zone shall extend to 25 feet from the edge of the treated field.

- For Applications Between 5 and 20 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  25 feet + ((Acres Treated Per Day – 5) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

- For Applications Between 20 and 40 Acres per Day: Use the following formula to determine the size of the Buffer Zone:

  100 feet + ((Acres Treated Per Day – 20) x 5 feet) =
  Distance From the Edge of the Treated Field (Adjusted for Acres Treated)

Step 3 – Adjust Buffer Zone to Account for Application Rate:

- The size of the Buffer Zone is reduced proportionally with the application rate, compared to the maximum rate of 530 lbs MIDAS 33:67 per treated acre. Use the following formula, utilizing the distances calculated in Step 2, to determine the adjusted size of the Buffer Zone:

  Distance From the Edge of the Treated Field (Adjusted for Acres Treated) x (Application Rate [lbs MIDAS 33:67 per treated acre]/530) = Distance From the Edge of the Treated Field (Adjusted for Application Rate)

- In no case shall this adjustment of the Buffer Zone result in a Buffer Zone that is smaller than the Minimum Buffer Zone size of 25 feet from the edge of the treated field.

Step 4 – Adjust Buffer Zone Configuration to Account for Prevailing Wind:

- When there is a clear historical expectation that a single, dominant prevailing wind direction will be present during the 24 hour period following the initiation of the application, the Buffer Zone can be limited to the semi circle downwind from the treated field.

Step 5 – Re-Determine Need For Buffer Zone:

- A Buffer Zone is not required if, after following the previous steps and determining the size and shape of the Buffer Zone, the locations identified in Step 1 (as being likely to be occupied for more than 1 hour during the 24 hours following the application) are not within the calculated Buffer Zone.

Applications shall not be made within 100 ft of occupied sensitive sites. Sensitive sites are schools, convalescent homes, and hospitals.

Users must ensure that persons are not present within the Buffer Zone for 24 hours following application.

PPE For Reentry During the Entry-Restricted Period:
Reentry is limited to inspection and repair of tarping material allowed by this labeling. The PPE required for these tasks are listed in the "Personal Protective Equipment" section of this label's PRECAUTIONARY STATEMENTS.

Precautions for Usage Prior to, During and After Soil Fumigation:

Prior to fumigation:

- Follow all local government instructions for posting of treated areas and post all treated areas with warning signs:

  - The applicator (or supervisor of the application) must placard all entrances to the fumigated area with signs bearing the following:
    - Skull and crossbones symbol.
    - "DANGER/PELIGRO".
    - "Area under fumigation. DO NOT ENTER/NO ENTRE."
    - "Iodomethane and Chloropicrin Fumigants in Use."
    - The date and time of fumigation,
    - Name of this product, and
    - The name, address, and telephone number of the applicator.
- Comply with all local ordinances and regulations.
- Do not apply this product when there is an atmospheric inversion.
- Never fumigate alone. A minimum of two trained people must be present during handling and application of soil fumigants.
- Drivers of application equipment are responsible for providing all other workers information about precautions and procedures in soil fumigation.
- Additional instructions must be made available to workers in the mechanical operation of the tractor and how to safely work with the operator while fumigating.
- Always handle this product in the open, with all workers standing "upwind" from the container and where there is adequate ventilation.
- Check the fumigation system for leaks or worn out equipment prior to soil injection.
- When fumigating from a tractor, it is required that 5 gallons of water be carried on the tractor and readily available for rinsing and cleaning purposes. An additional 5 gallons of water must be available in the service truck. This water must be potable and in containers marked "Decontamination water not to be used for drinking."
- Soil preparation of the treatment area should be reasonably free of trash and in good tilth prior to soil treatment.
- Avoid applying to wet or cold soils (<55°F at a depth of 8 inches).

During Fumigation:

- Immediately cover treated areas with a plastic tarpaulin for a minimum of 5 days when shank injection is less than 18 inches deep.
- Allow time for complete voiding of material in the buried shanks following closure of the shutoff valve and before removing shanks from the soil.
- In the event that trash is pulled up with the shanks after completing a treatment pass, the trash must be covered with plastic film and the edges of the film buried under at least 4 inches of compacted soil before making the next pass through the field.
- Do not change cylinders when the fumigant system is under pressure. Change cylinders with all cylinder valves in the off position.

Following Fumigation:

- Keep all pets, livestock and other domestic animals away from the treated areas until after the tarpaulin has been removed.

- Remove the plastic tarps with a minimum of two trained people present during the operation.
- Do not allow entry by unprotected persons into the fumigated area until the signs are removed. Such signs must only be removed when the air concentration of chloropicrin is measured to be less than 0.1 ppm and no sooner than 48 hours following application. Signs must remain legible during entire posting period. Signs that identify the "buffer zone" adjacent to the treated field can be removed 24 hours following application.
- To determine whether aeration is complete, each fumigated site should be monitored and shown to contain less than 0.1 ppm chloropicrin in the air space around the treated site.
- Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

Spill and Leak Procedures:

- Cease all operations if any leak develops in the fumigation system.
- Evacuate all people from the area to a safe distance upwind.
- Wear all Personal Protective Equipment including respirators and/or SCBA for entry into the area to correct the problem.
- Approach the area from the upwind side.

Contaminated soil, water and other cleanup debris may be hazardous waste. Report any spill that exceeds 300 lbs (19.9 gallons of product) to the National Response Center (800-424-8802).

General Information and Instructions

This fumigant is a highly hazardous material. It is a restricted use pesticide that must only be used by individuals trained and certified in its proper use. Before using, read the entire label and follow all use directions and precautions. All persons working with this fumigant must be knowledgeable about the hazards and trained in the use of required respirator equipment and detector devices, emergency procedures and proper use of the fumigant.

SOIL BORNE PESTS CONTROLLED: MIDAS 33:67 controls soil-borne pests including nematodes, insects, weed seeds, and diseases such as those caused by *Phytophthora, Pythium, Fusarium, Verticillium* and *Rhizoctonia*. It is to be applied as a pre-plant soil fumigation to fields intended for the commercial production of strawberries, tomatoes, peppers, ornamentals, turf, trees, vines, and to soils intended for strawberry nursery use.

Soil Fumigation using MIDAS 33:67 must be conducted according to directions and conditions of use described in this label. Application of this product will control only those pests present in the soil at time of soil treatment. It is not to be used as a preventative treatment for pests that may be introduced after the fumigant has been applied and/or tarps removed. To avoid the re-introduction of pests (nematodes, weed

seed and disease), do not use irrigation water, transplants or equipment that could carry pests into the planting area. Avoid moving infested soil back into the treated area through cultivation or other means.

SOIL PREPARATION: Prior to the application of soil fumigants, the ground must be sufficiently moist to imbibe seeds for germination. The soil should be worked to the depth that is desirable for the fumigant to penetrate. Plant refuse should be worked into the soil and allowed enough time to decompose prior to treatment with soil fumigants.

FIELD FUMIGATION: Apply MIDAS 33:67 by shank Use tractor mounted chisels spaced no more than 12 inches apart and at a depth of no less than 6 inches below the soil surface. The treated ground must be sealed, utilizing a mechanical tarp layer, with a gas-tight plastic tarpaulin immediately following the chisel, except when applied by deep-shank broadcast application, as detailed below under "Iodomethane Pre-Plant Field Fumigation Methods". Tarps should remain on the soil for at least 5 days prior to removal and planting.

PLANTING INTERVAL: Do not disturb treated soil for at least 10 days after application of the fumigant. A longer period before planting may be necessary if the soil is wet or cold.

To minimize the potential for crop injury, allow the fumigant to dissipate completely before planting a crop. Seed may be used as a bioassay to determine if MIDAS 33:67 is present in the soil at concentrations sufficient to cause plant injury. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

CROP ROTATION RESTRICTIONS
Strawberries, fresh market tomatoes and peppers can be planted into treated soil as soon as crop safety can be assured and no sooner than 10 days after treatment. Crops other than strawberry, tomatoes, peppers require a 4 month plant back rotation restriction.

Application by Broadcast or Flat Fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below.

Application by Bed Shank fumigation: Use dosage rates and planting intervals as indicated in the Pre-Plant Soil Fumigation Table below. Row or bed applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.

PRE-PLANT SOIL FUMIGATION TABLE

CROP	MIDAS 33:67 / Treated Acre**	Time Between Application and Planting***
Strawberry Tomato Pepper	300 – 530 lbs/A (19.9 – 35.1 gal/A)	10 – 14 days

Strawberry Nursery*	530 lbs/A (35.1 gal/A)	10 – 14 days
Turf Ornamentals (flowers grown for cutting, bulbs, nursery plants)	300 – 530 lbs/A 19.9 – 35.1 gal/A	10 – 14 days
Trees Vines	360 – 530 lbs/A (23.8 – 35.1 gal/A)	10 – 14 days

* Minimum rates for both iodomethane and chloropicrin applied in combination to maintain Phytosanitary Certification.

** Use higher rates for Nutsedge and Malva control. It is recommended that a minimum of 450 lbs/A (29.9 gal/A) of MIDAS 33:67 be applied.

*** Tarps are not to be removed for at least 5 days following application. If odors of fumigant persist beyond the two-week period you may disc, plow or chisel the soil to help aeration in a flat fume (broadcast) fumigation operation. Use the longer planting restriction periods under conditions of high soil moisture, heavy soils, or rain.

NOTE: Fumigation of highly acid soils or those high in organic matter can cause ammonia toxicity and or elevated levels of soluble salts in the soil. Fertilize as indicated from soil analysis following fumigation and avoid those fertilizers using ammonium salts.

FOR TREES AND VINES – PREPLANT DEEP INJECTION AUGER-PROBE TREATMENT: Use 3 lbs of MIDAS 33:67 per injection site, typically to a depth of between 18 to 36 inches below the soil surface though deeper injections may be made as appropriate. Use 1 injection site per 100 square feet (i.e., one injection site every 10 feet in a standard grid pattern). Planting or replanting of trees or vines may begin 14 days after the period of exposure. DO NOT PLANT if the odor of the chloropicrin used in MIDAS 33:67 is detectable.

DRIP IRRIGATION (CHEMIGATION)

Apply this product only through buried drip tape or equivalent irrigation system. Do not use this product through any other type of irrigations system.

General Instructions for Drip Irrigation:

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- Only a person knowledgeable of the chemigation system and responsible for its operation, or persons under their direct supervision shall operate the system and make the necessary adjustments should the need arise.
- Surfactant registered for use with chloropicrin is required (Arvesta TM456 or an alternate product recommended by Arvesta Corporation must be used).
- Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place.

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regulatory serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must contain a functional, normally closed, automatic valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with a system interlock.

Application by Drip fumigation:

- Use dosage rates and planting interval times as indicated in the Pre-Plant Fumigation Table (above). Drip applications may be made at the broadcast rates but the amount will be proportionately less per acre depending upon the row spacing and width of treatment in the row or bed.
- MIDAS 33:67 may be applied through buried drip tape. Use of a tarp seal is required for all applications of this product.
- The dilution rate for drip-line fumigation is 1,060 – 1,515 ppm. One gallon of MIDAS 33:67 in 1,810 gallons of water is equivalent to 1,000 ppm. MIDAS 33:67 must be metered into the water.
- Soil must be in good tilth and condition. Free of clods and un-decomposed soil material.
- Use drip irrigation components made of brass, stainless steel, copper, nickel, polypropylene, polyethylene, Teflon, viton, rigid PVC, and EPDM. Rigid PVC should not be exposed to undiluted MIDAS 33:67 or more than 1,515 ppm MIDAS 33:67 in the diluted form. Do not use aluminum, vinyl, plastic (other than polypropylene or polyethylene), zinc or alloys.
- In very sandy soils, apply MIDAS 33:67 when soil moisture conditions throughout the treatment zone are near field capacity. When necessary, apply a pre-treatment amount of water to wet the bed and enhance even movement of the material through the soil profile at time of treatment.

- Apply MIDAS 33:67 with the surfactant Arvesta TM456 or an alternate surfactant recommended by Arvesta Corporation to aid in the solubility of the compound in irrigation water when applied alone or in combination with chloropicrin at a rate of 5 lbs of surfactant per 95 lbs of chloropicrin (142 lbs MIDAS 33:67).
- MIDAS 33:67 must be monitored as it enters the irrigation system and must pass through a static mixer, coarse filter, or fine strainer or equivalent devices to insure proper mixing before it is distributed through the irrigation system. Do not allow treatment solution to accumulate on the soil surface. Do not allow treatment solution to pond, puddle or run-off. If run-off occurs, discontinue the application immediately and cover the contaminated soil area with clean soil to absorb the material.
- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent back flow contamination of the water source.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the chemical supply or injection pump.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Pump types must be suitable for the injection of corrosive materials and capable of being fitted with a system interlock. Injection systems must use a metering pump, such as a positive displacement or diaphragm pump, venturi system or a pressure safe cylinder containing MIDAS 33:67 equipped with a metering valve and flow meter.
- Following application, continue to apply irrigation water to rinse the irrigation system of any mixture of MIDAS 33:67. Make sure any rigid dead end or low spots are drained or flushed completely. DO NOT ALLOW MIDAS 33:67 TO REMAIN IN THE IRRIGATION SYSTEM. Leave the soil undisturbed for at least 10 days after fumigation. Then proceed with agricultural practices normal for crop management activities.

IODOMETHANE PRE-PLANT FIELD FUMIGATION METHODS:

For best results, fumigations with MIDAS 33:67 shall be performed in accordance with the following application techniques. Consult with your regional agricultural advisor or Arvesta representative regarding other techniques that represent best management practices in your area.

Tarpaulin/Shallow/Broadcast

- Use either:
  - An application tractor equipped with an air fan dilution system, and with a plow consisting of horizontal v-shaped blades mounted by a vertical arm to the tool bar. The fumigant injected laterally beneath the soil surface; or
  - Rearward-curved (swept-back) chisels, closing shoes, and compaction roller.
- Injection depth between 6 and 15 inches.

- Injection spacing of 12 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for a minimum of 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut and removed as follows:
    - Tarpaulins used for broadcast fumigations shall be cut using only mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
    - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
    - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Tarpaulin/Shallow/Bed

- Rearward-curved (swept-back) chisels with either:
    - Closing shoes and compaction roller. The closing shoes shall cover the chisel marks with soil just ahead of the compaction roller, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Bed shaper. The chisels shall be placed with the injection point under the bed shaper, and the tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor; or
    - Combination bed former and bed shaper. The chisels shall be placed between the bed former and the bed shaper. The tractor with the tarpaulin-laying equipment shall immediately follow the application tractor.
- Injection depth of between 6 and 15 inches. The injection depth in preformed beds must not be below the bed furrow.
- Injection spacing of 12 inches or less, typically performed with a multiple shank applicator.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block.
- If tarpaulins are removed before planting, tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed. The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 6 days.
- If tarpaulins are not to be removed before planting, the application block restricted entry interval shall either:
    - Consist of the 5-day period described above plus an additional 48 hours after holes have been cut for planting, or
    - Be at least 14 days. If this option is chosen, the chloropicrin air concentration underneath the tarpaulin must test less than 0.1 parts per million before planting begins.

Tarpaulin/Deep/Broadcast

- Forward-curved chisels with either:
  - An air fan dilution system on the application tractor; or
  - Closing shoes and compaction roller.
- Injection depth of at least 18 inches.
- Injection spacing of 68 inches or less.
- The tarpaulin shall be laid down simultaneously (with fumigant injection) by tarpaulin-laying equipment mounted on the application tractor.
- The tarpaulin shall not be cut for at least 5 days (120 hours) following completion of injection to the application block. The tarpaulin shall be cut as follows:
  - Tarpaulins used for broadcast fumigations shall only be cut using mechanical methods (all-terrain vehicle or a tractor with a cutting wheel). Each tarpaulin panel used for broadcast fumigations shall be cut lengthwise.
  - Tarpaulin cutting and tarpaulin removal shall be discontinued if the presence of chloropicrin is readily evident by onset of eye irritation or odor.
  - Tarpaulin removal shall begin no sooner than 24 hours after tarpaulin cutting has been completed.
- The application block restricted entry interval shall end at completion of tarpaulin removal, and shall be at least 5 days.

Nontarpaulin/Deep/Broadcast

- Forward-curved chisel used with:
  - An application tractor equipped with an air fan dilution system and the injection depth shall be at least 18 inches; or
  - Closing shoes and compaction roller and the injection depth shall be at least 24 inches.
- Injection spacing of 66 inches or less.
- The soil shall not be disturbed for at least 4 days (96 hours) following completion of injection to the application block.
- The application block restricted entry interval shall be 4 days.

FOR USE IN CALIFORNIA ONLY

Field Fumigation: This section pertains to field soil fumigation use requirements using chloropicrin or any other fumigant or warning agent. For California purposes field soil fumigation does not apply to tree holes, raised-tarpaulin nursery fumigations of less than one acre, and greenhouses.

Tarpaulins shall have a permeability factor between 5 and 8 milliliters iodomethane or methyl bromide per hour, per square meter, per 1,000 parts per million of iodomethane under the tarpaulin at 30 degrees Celsius, and be approved by the state pesticide officials.

Tarpaulins shall be buried under at least four inches of firmly packed soil at the end of the rows. The tarpaulins shall remain in place for the time specified for the fumigation method.

Permit requirements and Notifications of Intent for field fumigations shall be in compliance with requirements of Article 3 (Permit System), Subchapter 4 (Restricted Materials), Chapter 2, Division 6, of Title 3 (Food and Agriculture) of the California Code of Regulations.

CONDITIONS OF SALE

1. Arvesta Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the Directions for Use under normal conditions of use.
2. This warranty does not extend to the use of this product contrary to the label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Arvesta. ARVESTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. ARVESTA DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.
3. Critical and unforeseeable factors beyond Arvesta's control prevent Arvesta from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which the product is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the use stated on the label and even though label directions are followed. Except as stated in 1 above, Buyer and User acknowledge and assume all risks and liabilities resulting from handling, storage, and use of this product.

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460. Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number ARVESTA Corporation; 100 First Street, Suite 1700; San Francisco, CA 94105	EPA Registration Number/File Symbol 66330-
Active Ingredient(s) and/or representative test compound(s) Iodomethane and chloropicrin	Date February 16, 2005
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) Terrestrial; non-food	Product Name MIDAS 33:67

NOTE: If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

SECTION I: METHOD OF DATA SUPPORT (Check one method only)

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☑ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

SECTION II: GENERAL OFFER TO PAY

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☐ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses .

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature	Date	Typed or Printed Name and Title
	02/16/05	Laurent C. Mézin

EPA Form 8570-34 (9-97) Electronic and Paper versions available. Submit only Paper version.

Form Approved OMB No. 2070-0060

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401 M Street, S.W.
WASHINGTON, D.C. 20460

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DATA MATRIX

Date February 16, 2005			EPA Reg No./File Symbol 66330-		Page 0 of 2
Applicant's/Registrant's Name & Address ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco, CA 94105			Product MIDAS 33:67		
Ingredient Iodomethane; chloropicrin					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
See attached sheets	See attached sheets		See attached sheets		
Signature			Name and Title Laurent C. Mézin; Project Manager		Date Feb. 16, 2005

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Agency Internal Use Copy

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WASHINGTON, D.C. 20460

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DATA MATRIX

Date February 16, 2005 | EPA Reg No./File Symbol 66330- | Page 0 of 2

Applicant's/Registrant's Name & Address
ARVESTA CORPORATION
[illegible]

Product
MIDAS 33:67

Ingredient Iodomethane; chloropicrin

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
[redacted]					
			See attached sheets		

Signature

Name and Title
Laurent C. Mézin; Project Manager

Date
Feb. 16, 2005

EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version.

Public File Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67

Ingredient: IODOMETHANE; CHLOROPICRIN

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
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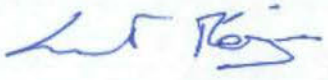
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	

Signature	Name and Title	Date
	Laurent C. Mézin; Project Manager	Feb. 16, 2005

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATA MATRIX

Date: February 16, 2005	**EPA Reg. No.:** 66330-
ARVESTA CORPORATION 100 First Street, Suite 1700; San Francisco CA 94105	**Product:** MIDAS 33:67

Ingredient: IODOMETHANE; CHLOROPICRIN

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
			Arvesta Corporation	OWN	Waiver
Signature			Name and Title Laurent C. Mézin; Project Manager		Date Feb. 16, 2005

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**Pages 205-207 Confidential Statement of Formula may be entitled to confidential treatment*